FusionDirectory installation

- Conceving your directory
- What can FusionDirectory do?

Installing FusionDirectory

What should you know to deploy FusionDirectory successfully

- Get Official GPG signature keys
- Installation on Debian based systems
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- Migrate FusionDirectory from 1.0.7.4 to 1.0.8
- Migrate FusionDirectory from 1.0.8 to 1.0.8.1
- Migrate FusionDirectory from 1.0.8.1 to 1.0.8.2
- Migrate FusionDirectory from 1.0.8.2 to 1.0.8.3
- Migrate FusionDirectory from 1.0.8.3 to 1.0.8.4
- Migrate FusionDirectory from 1.0.8.4 to 1.0.8.5
- Migrate FusionDirectory from 1.0.8.5 to 1.0.8.6
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- Migrate FusionDirectory from 1.0.8.8 to 1.0.8.9
- Migrate FusionDirectory from 1.0.8.9 to 1.0.9
- Migrate FusionDirectory from 1.0.9 to 1.0.9.1
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- Migrate FusionDirectory from 1.0.11 to 1.0.12
- Migrate FusionDirectory from 1.0.12 to 1.0.13
- Migrate FusionDirectory from 1.0.13 to 1.0.14
Migrate FusionDirectory from 1.0.14 to 1.0.15

Automating the installation

Automating the installation

LDAP Documentation

FusionDirectory LDAP Index
Conceiving your directory

This part suggest you an empiric method of directory conception, and trap to avoid

Trap to avoid

Conceiving Directory could be an impossible Mission! Why? Because we have to possibility to store every things.. But everything could be stored?

When creating your directory, you need to keep in mind the following:

- Network services which will be based on
  - What are the LDAP specifications for your applications?
  - What is the research method? (for example, some applications need rfc2309bis specifications and didn't know posix specifications)
- User and group management and their organizations.
  - Each structure has this own operational way
  - The challenge is to translate in computer terminology a human organization without enough details
- Respect RFC
  - We can't do everything!
  - A directory obey to specific rules as organization naming and structure.
- Need to be pragmatic
  - An infrastructure directory isn't an organization chart and an addressbook. (but they could be determined from it)

Conception method of directory

The following method isn't the Truth! but it could be help you!

Analyze the current situation

In case of a small company (eg: acme.com) with 3 geographical locations, we could see that each location has this own IT services but only one accounting service and one selling service

You need to:

- Detect structural entities
  - IT service
  - Management service
  - Accounting service
  - Selling service
  - Factory service
  - Employee
  - Server and workstation
Detect organisational entities
  - secretary
  - Director
  - Head of service
  - Trainee

Detect potentially geographical locations
  - Lyon
  - Paris
  - Bruxelles

Detect the division of each entities (where is everybody?) ex :
  - Lyon : IT, accounting service, selling service
  - Bruxelles : IT, factory service, selling service
  - Paris : IT, selling service, management service

Detect what will be the nee about searching inside this directory

All thoses informations will help to create a directory usable for searching efficiently and managing everything by everyone

**Suggested schema**

For this virtual company, this is the suggested schema
**some precisions**: Redondancy of « IT », « commercial » and « direction » groupe is made voluntary, it allow optimization about research in case of listing everyone in one locations or all locations.

**example**:
- Listing of each selling employe = list of all person belong to “selling” group
- Listing of each selling employe in Lyon = list of all person belong to “selling” group inside Lyon entities

**Translation in LDAP terms of above schema**

![LDAP diagram](image)

**Some precisions**: The structural entities « employees », « servers » or « salesmen » are translated like this in a directory:
- « salarié » is an entity representing a person : it’s a user
- « commercial » is an entity grouping person : it’s a group
• « serveur » is an entity representing a system : it's a configuration
• Each structural entities must be contained in container called in LDAP language “Organizationnal Unit OU”.
• Each structural entities must be unique and identified thanks to an attribut and the name of container : The common name (CN) and the branch.
• For some object, the CN attribute could be replace by the UID (Unique Identifier)
  example : miss Z is identify by cn=mrs Z,ou=people,ou=paris,dc=opensides,dc=be

Please note :

• Name with accent (like in french language) should be avoid
• By unofficial convention, users are stocked in an OU called people and groups in groups.
• root of the LDAP tree is generally the identifiable of the company.
  This identifiable is often the Full Qualified Domain Name (FQDN) of the company (eg : opensides.be).
  By this way, we use the data type Domain Company (DC) : so « dc=opensides,dc=be »
FusionDirectory possibilities

FusionDirectory considers the role of an LDAP server is no than organized storage. This is not the LDAP server duty to ensure content consistency (consistency can be assured by the overlay openLDAP dynamicGroup) or even to define the security policy of the password (LDAP ppolicy overlay). This vision allows FusionDirectory to be used with any type of LDAP server provided that it knows how to communicate in LDAP V2 or V3 as:

- ApacheDirectory from the apache Fondation
- eDirectory from Novell
- 389-Directory From Fedora project
- Sun Directory from Sun Microsystems

Content protection of LDAP tree

FusionDirectory adds entries in the directory, an attribute (FusionDirectoryACL) for limiting access to an LDAP record, or even attribute to users.

This avoids the tedious drafting of rules Control (ACL) in the directory server. ACLs are only used by FusionDirectory and are not intrusive to other applications using the directory server. These ACLs allow integration FusionDirectory enough thrust into an information system as complex as it is. These ACLs can be assigned to roles. We may have a role:

- user : it can connect to FusionDirectory with his login / password to change its data only
- Local administrator: this role will be able to manage users and groups and also a branch
- global administrator: this role has the right to do everything
- human resources: this role can only create users from template to optimize the flow of arrival of new people

Access to multiple LDAP trees

FusionDirectory is a web interface running by profile.

It is therefore possible to have a single FusionDirectory instance and access multiple LDAP servers with different profiles.

In the case of an information system in multiple locations with separate directories, a single interface will manage them all.

FusionDirectory Triggers

FusionDirectory incorporates a series of triggers that can launch a specific action based on a task FusionDirectory must run.

These triggers are associated with a content type (LDAP user, group, server, password, service (etc.
..) and the triggering action (create, edit, delete, change password ... )

This system is very useful when certain actions should be followed on arrival or departure of a person in the company. For example, when creating a user, a script generation form can be executed automatically with information from the LDAP server. This can be useful for generating badges with photo, a form of access to the canteen or sending an email to warn of the actual arrival of the person.

This system is also convenient when we want to deploy the account of that person on an application does not support LDAP (FusionDirectory can also transmit the password). Another example is when a user leaves, you must:

- archive and delete his mailbox
- archive and remove its network space
- delete him from third party applications not connected to LDAP. All of this can be easily done by shell scripts (at least in UNIX environment) and run automatically after the suppression of the person by the administrator in FusionDirectory

**The interaction with non-LDAP applications**

FusionDirectory stores information of a service or a server on an LDAP server.

How about when this service does not have the opportunity to interact with LDAP? This question can be solved by creating:

- LDAP schema suitable for application to the LDAP server
- a plugin for its management in FusionDirectory
- a plugin for the client installed on the server (client as a module FusionInventory)

**Basic operation of FusionDirectory**

**Architecture diagram**

Here is a diagram detailing the operation for servers

- samba
- DNS server
- Webserver
The common steps

- **Step 1**: the user connects to the server via a web interface FusionDirectory. The user account already exists in the LDAP server.
- **Step 2**: For each write or read in the directory, the web application FusionDirectory connects to the LDAP server as a user with sufficient rights to delete, modify or create any object. The connection is done through LDAP v3. All connections settings and display parameters of FusionDirectory are stored in `/etc/FusionDirectory/FusionDirectory.conf`

Web application case

The application has been configured to authenticate each user through the LDAP. The web application has the name of the LDAP server, the search filter and possibly a service account.

- **Step 1 and 2**: The administrator created a user account with the POSIX extension (which allows the filling of the password for a given account)
- **Step 3**: The user connects to the web application provides a login / password
- **Step 4**: The web application confirm or reject the connection of the user on the application by querying LDAP directory.

Samba server case
The server contains the Samba network drives belonging to the user and possibly the domain controller.

- **Step 1 and 2**: L'administrateur a modifié le compte de la personne précédente en rajoutant l'option Samba (conversion du mot de passe posix en mot de passe windows, définition des règles d'accès, chemin UNC du lecteur réseau de l’utilisateur ..)
- **Step 5**: The user requests access to the Samba server.
- **Step 6**: The Samba server retrieves information about the requesting user on the LDAP server and uses it to allow access and direct the user to the appropriate shared directory

**case of DNS system with bind software**

The DNS server provided among other things, the equivalence between IP addresses and names of qualified servers. For that he needs to consult a table of equivalence IP ⇒ name and name ⇒ IP. FusionDirectory allows the manipulation and storage in the LDAP configuration of the DNS server bind 6).

- **Step 1**: Via the web interface, the administrator says DNS records.
- **Step 2**: Data is written to the LDAP server.
- **Step 7**: Synchronization of regular equivalence tables from the local content of the LDAP server is done via a script (ldap2zone) running on the DNS server. Running this script every time you change DNS settings on the LDAP server can be implemented through triggers. *
- **Step 8**: The client accesses the DNS server by the application in its classical version 9, can bind directly query the LDAP server

**General remarks on the use of FusionDirectory**

In this framework, the roles between FusionDirectory, the LDAP server and server tiers are well defined:

- FusionDirectory reads / writes to the LDAP, the server application or third read the LDAP
- FusionDirectory is not essential to the operation of servers and / or applications.
- FusionDirectory is essential for a use of data in a friendly way.

The 3 examples above are not the only applications, because other services use the same principle as the mail server Postfix to route messages or the server dhcpd for assigning dynamic IP addresses.

1) http://directory.apache.org/
2) http://www.novell.com/fr-fr/products/edirectory/overview.html
3) http://directory.fedoraproject.org/
4) http://www.sun.com/software/products/directory_srvr_ee/dir_srvr/index.xml
5) http://forge.fusioninventory.org/projects/fusioninventory-ldap
6) https: // www.isc.org / software / bind
Getting the official GPG keys to active package signature

Our packages for Debian and Centos/RHEL are signed with the official gpg key of the project.

Getting the gpg key

```
gpg --keyserver keys.gnupg.net --recv-key 62B4981F

gpg --export -a "Fusiondirectory Archive Manager
<contact@fusiondirectory.org>" > FD-archive-key
```

**Adding the key to apt for Debian/Ubuntu**

```
apt-key add FD-archive-key
```

**Adding the key to RPM for Centos / RHEL / Scientific Linux**

```
cp FD-archive-key /etc/pki/rpm-gpg/RPM-GPG-KEY-FUSIONDIRECTORY
rpm --import /etc/pki/rpm-gpg/RPM-GPG-KEY-FUSIONDIRECTORY
```

**Adding the key to SLES**

```
rpm --import FD-archive-key
```

From: https://documentation.fusiondirectory.org/ - FusionDirectory Documentation

Permanent link: https://documentation.fusiondirectory.org/en/documentation/admin_get_ggp_keys

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Before Installation

Some information

FusionDirectory and Openldap Server will be in the same server but it could be on 2 different servers. This directory will contains some informations about acme.com company In this part only user and group are considered. The documentation describe directory building for acme.com company.

The Installation will be in several main steps

- Installation of OpenLdap server
- Installation and Integration of FusionDirectory Openldap Schema
- Installation of FusionDirectory-core
- Configuration of FusionDirectory-core

Please find here the whole documentation in one page: Complete documentation

From: https://documentation.fusiondirectory.org/ - FusionDirectory Documentation

Permanent link: https://documentation.fusiondirectory.org/en/documentation/admin_installation

Last update: 2014/06/27 21:16
Installation of OpenLdap server

Install openldap and related utilities:

**Debian 'wheezy' or 'squeeze'**

```
root@fusioninstall:~# apt-get install slapd
root@fusioninstall:~# apt-get install ldap-utils
```

**Ubuntu 'Precise Pangolin (12.04 LTS)', 'Quantal Quetzal (12.10)'**

```
root@fusioninstall:~$ sudo apt-get install slapd
root@fusioninstall:~$ sudo apt-get install ldap-utils
```

Enter the OpenLDAP administrator password. You could enter anything, the configuration script will be reran.

```
[---------------------] Configuring slapd
    | Please enter the password for the admin entry in your LDAP directory.
    |
    |
    | Administrator password:
    |
    |
    | adminfusion___________________________________________________________
    |
    |
    | <Ok>
```

Re-enter the password in order to confirm it and select **ok**

```
[---------------------] Configuring slapd
    | Please enter the admin password for your LDAP directory again to verify
    | that you have typed it correctly.
    |
    |
```


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Re configuration of LDAP server

In order to have a more specific installation, we will relaunch the configuration through the debian tool.

Debian 'wheezy' or 'squeeze'

```bash
root@fusioninstall:~# dpkg-reconfigure slapd
```

Debian Ubuntu 'Precise Pangolin (12.04 LTS)', 'Quantal Quetzal (12.10)'

```bash
root@fusioninstall:~$ sudo dpkg-reconfigure slapd
```

On this screen, select **No** in order to write a new configuration:
Write the directory name.

The following screen is the most important. It defines the tree of your directory. The tree name is base on the Domain name. acme.com will provide a tree called: \texttt{dc=acme,dc=com} Pay attention to this field, it could be difficult to change (All information stored inside the tree will be based on this name!)

\begin{verbatim}
<table>
<thead>
<tr>
<th>Configuring slapd</th>
</tr>
</thead>
<tbody>
<tr>
<td>The DNS domain name is used to construct the base DN of the LDAP directory. For example, 'foo.example.org' will create the directory with 'dc=foo, dc=example, dc=org' as base DN.</td>
</tr>
<tr>
<td>DNS domain name:</td>
</tr>
<tr>
<td>acme.com</td>
</tr>
<tr>
<td>&lt;Ok&gt;</td>
</tr>
</tbody>
</table>
\end{verbatim}

The following screen will provide the organization name:

\begin{verbatim}
<table>
<thead>
<tr>
<th>Configuring slapd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please enter the name of the organization to use in the base DN of your LDAP directory.</td>
</tr>
<tr>
<td>Organization name:</td>
</tr>
</tbody>
</table>
\end{verbatim}
Password of the Directory Administrator.

The two next screens will ask you the password of the LDAP directory. By default (In Debian), the directory admin name is “admin”. The LDAP Name (also called distinguished name (dn) will be: cn=admin,dc=acme,dc=com.
The next screen will ask you the kind of backend storage. As advised, you could choose **HDB**: 

```
Configuring slapd

The HDB backend is recommended. HDB and BDB use similar storage formats, but HDB adds support for subtree renames. Both support the same configuration options.

In either case, you should review the resulting database configuration for your needs. See /usr/share/doc/slapd/README.DB_CONFIG.gz for more details.

Database backend to use:

    BDB

    **HDB**

<Ok>
```
The following question will ask you if you want to drop your directory if you remove Openldap software .. (if Yes I hope you have good backup ...)

Do you want the database to be removed when slapd is purged?

<Yes>  **<No>**

Purge old (dirty) directory.

The debian installer detect the old installation, it suggests you to move the old directory

There are still files in /var/lib/ldap which will probably break the configuration process. If you enable this option, the maintainer scripts will move the old database files out of the way before creating a new database.

Move old database?

<Yes>  <No>

Ldap v2 protocol

Openldap can use the LDAP v2 protocol (its no longer used, but some applications may use it) You could say No.
The obsolete LDAPv2 protocol is disabled by default in slapd. Programs and users should upgrade to LDAPv3. If you have old programs which can't use LDAPv3, you should select this option and 'allow bind_v2' will be added to your slapd.conf file.

Allow LDAPv2 protocol?

<Yes> <No>

Check if Openldap is running

Debian 'wheezy' or 'squeeze'

```
root@fusion-install:~# /etc/init.d/slapd status
slapd is running.
root@fusion-install:~#
```

Ubuntu 'Precise Pangolin (12.04 LTS)', 'Quantal Quetzal (12.10)'

```
root@fusion-install:~$ sudo /etc/init.d/slapd status
slapd is running.
root@fusion-install:~$
```

if not:

Debian 'wheezy' or 'squeeze'

```
root@fusion-install:~# /etc/init.d/slapd start
root@fusion-install:~# /etc/init.d/slapd status
slapd is running.
root@fusion-install:~#
```
Ubuntu 'Precise Pangolin (12.04 LTS)', 'Quantal Quetzal (12.10)'

```
root@fusion-install:~$ sudo /etc/init.d/slapd start
root@fusion-install:~$ sudo /etc/init.d/slapd status
slapd is running.
root@fusion-install:~$
```

Go to

Installation and Integration of FusionDirectory Openldap Schema

From:
https://documentation.fusiondirectory.org/ - FusionDirectory Documentation

Permanent link:
https://documentation.fusiondirectory.org/en/documentation/admin_installation/openldap_install

Last update: 2014/06/27 21:16
Installation of FusionDirectory Schema

FusionDirectory packages can be found on the official repository: http://repos.fusiondirectory.org

Add the official repositories

Edit your /etc/apt/sources.list/ and add fusiondirectory repositories:

Debian 'wheezy'

```
root@fusioninstall:~# vim /etc/apt/sources.list

# fusiondirectory repository
deb http://repos.fusiondirectory.org/debian-wheezy wheezy main

# fusiondirectory debian-extra repository
deb http://repos.fusiondirectory.org/debian-extra wheezy main
```

Debian 'jessie'

```
root@fusioninstall:~# vim /etc/apt/sources.list

# fusiondirectory repository
deb http://repos.fusiondirectory.org/debian-jessie jessie main
```

Ubuntu 'Precise Pangolin (12.04 LTS)', 'Quantal Quetzal (12.10)'

```
root@fusioninstall:~$ sudo vim /etc/apt/sources.list

# fusiondirectory repository
deb http://repos.fusiondirectory.org/debian-wheezy wheezy main

# fusiondirectory debian-extra repository
deb http://repos.fusiondirectory.org/debian-extra wheezy main
```

Update your cache repository:

Debian 'wheezy' and 'jessie'

```
root@fusioninstall:~# apt-get update
```
Ubuntu 'Precise Pangolin (12.04 LTS)', 'Quantal Quetzal (12.10)'

```
root@fusioninstall:~$ sudo apt-get update
```

Check if all fusiondirectory packages could be found:

```
root@fusioninstall:~# apt-cache search fusiondirectory | more
fusiondirectory - Web Based LDAP Administration Program
fusiondirectory-developpers - Provide Scripts and doc for FusionDirectory development
fusiondirectory-plugin-addressbook - addressbook plugin for FusionDirectory
fusiondirectory-plugin-alias - alias plugin for FusionDirectory
fusiondirectory-plugin-alias-schema - alias schema for alias plugin for FusionDirectory
fusiondirectory-plugin-apache2 - Apache virtualhost plugin for FusionDirectory
fusiondirectory-plugin-apache2-schema - Apache schema for apache2 plugin for FusionDirectory
fusiondirectory-plugin-argonaut - Argonaut plugin for FusionDirectory
fusiondirectory-plugin-argonaut-schema - LDAP schema for FusionDirectory Argonaut plugin
.....
```

As you can see some packages came with a schema package (eg. fusiondirectory-plugin-alias-schema). If your Ldap Server isn't on the same host as the FusionDirectory one, the *.schema packages must be installed on the Openldap server and the other on fusiondirectory one.

**Add the FusionDirectory gpg key to secure the packages:**

Getting the official GPG keys to active package signature

**Installation of FusionDirectory Schema**

**Debian**

```
root@fusioninstall:~# apt-get install fusiondirectory-schema
```

Ubuntu 'Precise Pangolin (12.04 LTS)', 'Quantal Quetzal (12.10)'

```
root@fusioninstall:~$ sudo apt-get install fusiondirectory-schema
```

This packages provide the following LDAP schema:

- `/etc/ldap/schema/fusiondirectory/rfc2307bis.schema`
- `/etc/ldap/schema/fusiondirectory/core-fd-conf.schema`
On Debian and Ubuntu Quantal Quetzal, the default backend storage for schema is no longer flat file but the Directory himself. All configuration is stored in a special branch called `cn=config`.

### Integrating FusionDirectory Schema

#### Schema provided

In order to integrate all schema in LDAP server you need to have admin right on it.

FusionDirectory need the following schema in this order:

- Core schema of OpenLdap (installed by default with OpenLdap):
  - `/etc/ldap/schema/core.schema`
  - `/etc/ldap/schema/cosine.schema`
  - `/etc/ldap/schema/nis.schema`
  - `/etc/ldap/schema/inetorgperson.schema`

- Core schema of FusionDirectory:
  - `/etc/ldap/schema/fusiondirectory/core-fd.schema`
  - `/etc/ldap/schema/fusiondirectory/core-fd-conf.schema`
  - `/etc/ldap/schema/fusiondirectory/ldapns.schema`
  - `/etc/ldap/schema/fusiondirectory/template-fd.schema`

#### Integration of Schemas

install basic necessary FusionDirectory schema:

**Debian**

```
root@fusion-install:~# fusiondirectory-insert-schema
```

**Ubuntu 'Precise Pangolin (12.04 LTS)', 'Quantal Quetzal (12.10)'**

```
root@fusion-install:~$ sudo fusiondirectory-insert-schema
```

check if schemas are installed:

**Debian**

```
root@fusion-install:~# fusiondirectory-insert-schema -l
```
Integration of optional Schemas

To install optional Schemas, see their respective plugin documentation. Their schemas and ldifs are available within the repository (debian).

```
aptitude search fusiondirectory-plugin
```

After you installed them, e.g.:

```
aptitude install fusiondirectory-plugin-systems fusiondirectory-plugin-systems-schema
```

Use the fusiondirectory-insert-schema command provided by FusionDirectory to insert them, e.g.:

```
fusiondirectory-insert-schema -i /etc/ldap/schema/fusiondirectory/systems-fd.schema /etc/ldap/schema/fusiondirectory/systems-fd-conf.schema
```

This insertion is required in order for FusionDirectory to function normally (especially, it avoid errors in the Configuration page).

**Go to**

Installation of FusionDirectory
The following instructions provide a basic installation of FusionDirectory for managing User and Group.

**Installation trough the Debian Way**

Just install by the debian way !

**Debian**

```
root@fusion-install:~# apt-get install fusiondirectory
```

**Ubuntu 'Precise Pangolin (12.04 LTS)', 'Quantal Quetzal (12.10)'**

```
root@fusion-install:~$ sudo apt-get install fusiondirectory
```

FusionDirectory is a web based application. So it install Apache Web server and configure it, install php dependencies... so it could take some times.

**Configuration trough web interface**

After installing, Apache2 is configured for starting the initial configuration of FusionDirectory. Just go to [http://<your web server>/fusiondirectory](http://<your web server>/fusiondirectory)

**Step 1 : Secure the configuration screen**

You’ll see the following screen :

![FusionDirectory setup wizard](image)

Welcome to FusionDirectory setup wizard

This seems to be the first time you start FusionDirectory, we didn’t find any configuration right now. This simple wizard intends to help you while setting it up.

**What will the wizard do for you?**

- Create a basic simple site configuration
- Test to find problems within your PHP and LDAP setup
- Let you choose from a set of basic and advanced configuration switches
- Distinct migration of existing LDIF tools

**What will the wizard NOT do for you?**

- Fix all possible configuration errors
- Upgrade every possible LDAP setup - create backup dumps

To continue...

For security reasons you need to authenticate for the installation by executing the file /tmp/FusionDirectoryAuth, containing the current session ID on the server login system. This can be done by executing the following command:

```
echo -n "3F3Dd4862e86c48d1a61e0b0e7a5f9b" |./fusiondirectory.auth
```

Click the Next button when you're finished.

In order to begin FusionDirectory you have to create a temporary file with a unique number. So you
need a network access on it (eg. by ssh)

```
root@fusion-install:~# echo -n 3l5idldmq5ce66sklhsm3m2t6 > /tmp/fusiondirectory.auth
```

- click on `next` button

**Step 2 : Choose your installation language**

```
Language setup
Please select the preferred language
All this point, you can select the site wide default language. Choosing "automatic" will use the language requested by the browser. This setting can be overriden per user.
```

"Automatic" means that the language is determined directly from web browser.

**Step 3 : Check if PHP application server is correctly set**

```
Installation check
PHP module and extension checks
Checking PHP version: Ok
Checking for LDAP support: Ok
Checking for php plat support: Ok
Checking for curl support: Ok
Checking for icon support: Ok
Checking for fast method support: Ok
Checking for NAP support: Ok
Checking for cPanel support: Ok
Checking for MOD support: Ok
Checking for compression module support: Ok
```

Normally all those parameters are correctly set. If not the case you can modify it thanks to the fusioninventory apache file: `/etc/fusiondirectory/fusiondirectory-apache.conf`
Step 4 : Specify the connection parameter

The user specified in this screen MUST have read/write right everywhere in Directory.

- **Ldap connection**
  - **Location** is the name of FusionDirectory profile. Indeed, one FusionDirectoryServer could manage several Directory
  - **connection URI** is the URI of LDAP server. Here you can specify if it's an Secure LDAP connection (LDAPS)
  - **TLS Connection** : check if TLS system is used
  - **Base** : base dn is automatically detected, but An ldap Severr could have several bases in one host

- **authentication**
  - **Admin DN** : the admin DN must be specified in order to read and write full base DN specified above.
  - **Admin password** : the password must correspond to the admin DN of course

- **Schema base settings**
  - **Use rfc2307bis compliant groups** : LDAP user stored the DN of each group where the user belong to. It need the rfc2307.schema in Ldap server

- **Current status**
  - **Information** : give you information about binding user status.

You can click on **Next** button after filling every field.

Step 5 : Schema checking of LDAP directory

This screen tell you if there is some missing schema in LDAP Directory. You can ask to FusionDirectory to check if all schema stored in LDAP are correct.
Step 6 : Generic settings

- **Look and feel**
  - **theme**: for the moment there is only one theme. It allow you to create a more corporate one.

- **People and Group storage**
  - **people DN attribute**: a DN is composed from one or several attribute and the base DN. In this case the DN will be build with the CN attribute (common name) and base DN:
    
    ou=people,dc=acme,dc=com
  
  - **people storage subtree**: this is the branch where all users will be stored. by défault it is ou=people (ou=Organizational Unit)
  
  - **groups storage subtree**: this is the branch where all groups will be stored. by défault it is ou=groups (ou=Organizational Unit)
  
  - **include personal title**: in some company the title (Director, manager ..) could be used for identify one user (eg: the cn will be : cn=Director John Doe)
  
  - **relaxing naming policies**: this option allow you to create a template for deducing the CN attribute. For using it please see manpage of Fusiondirectory.conf
  
  - **Automatic uid**: it allow you the use a template for deducing the uid fiels which MUST be unique!
  
  - **GID/UID min**: it's the minimum assignable user or group id
  
  - **Number base for people/groups**: you can specify a start number for gid number and uid number (useful for using Fusiondirectory in existent structure)

- **Password settings**
  - **Password encryption algorithm**: You can choose what encryption algorithm you used for storing password.
  
  - **Password restrictions**: You can choose length of passwords and how many characters need to be different from old password (in case of changing password)
  
  - **Password change hook**: You can choose a script used after change a password (useful for password synchronisation)
  
  - **Account expiration**: is a method to get account expired based on password validity
Click on Next button to continue.

**Step 7 : Customization of special parameters**

This screen allows you to configure FusionDirectory timezone and snapshots.

- **timezone** : Timezone ... like writed!
- **Snapshot / Undo**
- **Enable snapshots** : FusionDirectory allow you to make snapshot of branch or ldap object before making a dangerous manipulation or just to make a backup.
- **Snapshot base** : You could specify the name of the branch where they will be stored snapshots.
- **Server** : You could specify the same LDAP server or another one.
- **User** : The name of the user that can write in this ldap directory.
- **Password** : Password of the above user.
Step 8 : Tweaking of some core behaviour

- **FusionDirectory core settings**
  - **Enable primary group filter**: all user have a primary group, it allow you to filter on it.
  - **Display summary in listings**: It adds at the end of each table, the number of item for each kind of object.
  - **Honour administrative unit**: this parameter allow you to manage your IT infrastructure by administrative unit. An administrative unit is a pool with user, group, server, printers,... You can, through ACL, declare an administrator on this unit, which could be different as the IT administrator. It's another method of IT management.
  - **Enable edit locking**: When someone is using an LDAP object, a flag is set. FusionDirectory could show to other people who want to edit this object a warning messages. This parameter specify the attribute to test in this case.
  - **Enable Copy & Paste**: you can copy and paste some LDAP object (for moving a user for example)... 
  - **FusionDirectory logging**: FusionDirectory could log some actions trough the syslog system on host.

- **Login ans session**
  - **Login attribute**: it could be the mail attribute or the uid attribute or both. It's used for connecting on FusionDirectory interface
  - The following parameters is easy to understand

- **Debugging**
  - Those options are interesting in case of developpement and troubleshooting

Click on next button to continue.
Step 9 : LDAP data Migration

FusionDirectory have its own schema so some migration is needed as object type.

Show what migration is needed

In this case there is only 2 things to migrate:

- Object Class of root object
- create an FusionDirectory Admin

As part of the migration of an existing infrastructure, a test phase is mandatory.

For each item, just click on Migrate button

Migrate root object
This screen shows you the change before it's applied.

**Create a Fusion Directory Admin**

<table>
<thead>
<tr>
<th>LDAP inspection</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Add required object classes to the LDAP base</td>
<td></td>
</tr>
<tr>
<td><strong>Current</strong></td>
<td></td>
</tr>
<tr>
<td>objectClass: dc=example,dc=com</td>
<td></td>
</tr>
<tr>
<td>objectClass: top</td>
<td></td>
</tr>
<tr>
<td>objectClass: dsObject</td>
<td></td>
</tr>
<tr>
<td>objectClass: organization</td>
<td></td>
</tr>
<tr>
<td><strong>After migration</strong></td>
<td></td>
</tr>
<tr>
<td>objectClass: ldap,dsObject</td>
<td></td>
</tr>
<tr>
<td>objectClass: top</td>
<td></td>
</tr>
<tr>
<td>objectClass: dsObject</td>
<td></td>
</tr>
<tr>
<td>objectClass: organization</td>
<td></td>
</tr>
<tr>
<td>objectClass: gidNumber</td>
<td></td>
</tr>
<tr>
<td>description: spadmin</td>
<td></td>
</tr>
</tbody>
</table>

**Check if Directory is ready**
You need to have a green check everywhere in order to continue.

**Step 10 : get and install the configuration file**

The configuration file must be installed in `/etc/fusiondirectory/` directory.

Some specific permissions must be applied:

**Debian 'Squeeze'**

```
root@fusion-install:~# fusiondirectory-setup --check-config
Checking FusionDirectory's config file
/etc/fusiondirectory/fusiondirectory.conf exists...
/etc/fusiondirectory/fusiondirectory.conf is not set properly, do you want to fix it ?: [Yes/No]?
```
Ubuntu 'Precise Pangolin (12.04 LTS)', 'Quantal Quetzal (12.10)'

```
root@fusion-install:~$ sudo fusiondirectory-setup --check-config
Checking FusionDirectory's config file
/etc/fusiondirectory/fusiondirectory.conf exists…
/etc/fusiondirectory/fusiondirectory.conf is not set properly, do you want to fix it ?: [Yes/No]?
Yes
```

**Step 11 : Enjoy**

Once all settings are applied, you get the following screen :

![Login screen](image1)

After making the connection with the login and password set at **Step 9** you'll have the following screen :

![Welcome System Administrator](image2)

**More about Configuration**

**Configuration of FusionDirectory**
Generic FusionDirectory Configurations

All the FD configuration is stored inside the ldap, in configs branch.

If you need to modify something, you can access to FD configuration by the 'Configuration' icon or entry in the 'Addons' section of the main page of FD GUI:

Access to configuration is read-only. If you need to make changes, then you must press the 'Edit' button at the bottom right of the window.
Below you will find an explanation of the different sections.

**Look n feel**

- **Language**: Defines the default language used by FusionDirectory. Normally FusionDirectory autodetects the language from the browser settings. If this is not working or you want to force the language, just modify the language here.
- **Theme**: (required) Defines what theme is used to display FusionDirectory pages. You can install some corporate identity like theme and/or modify certain templates to fit your needs within themes.
- **Timezone**: (required) Defines the timezone used within FusionDirectory to handle date related tasks, such as password expiration, vacation messages, etc. The timezone value should be a unix conform timezone value like in /etc/timezone.
Schema setup

- **Schema validation**: enables or disables schema checking during login. It is recommended to switch this on in order to let FusionDirectory handle object creation more efficiently.

Password settings

- **Password default hash**: (required) Defines the default password hash to choose for new accounts.
  Valid values are crypt/standard-des, crypt/enhanced-des, crypt/md5, crypt/blowfish, crypt/sha-256, crypt/sha-512, smd5, md5, sasl, ssh, sha. These values will be overridden when using templates.
- **Force default hash**: Enable/Disable force the use of the default password hash.
- **Password minimum length**: Determines the minimum length of a new password entered to be considered valid. Note that this only affect passwords that are set by the user, not by the admins.
- **Password minimum differs**: Determines how many characters that must be different from the previous password. Note that this only affect passwords that are set by the user, not by the admins.
- **Use account expiration**: Enables shadow attribute tests during the login to FusionDirectory and forces password renewal or account locking.
- **SASL Realm**: Defines the way the kerberos realm is stored in the userPassword attribute. Set it to REALM.NET in order to get {sasl}user@REALM.NET.
- **SASL Exop**: Defines the attribute to be stored in the userPassword attribute. Set it to uid in order to get the {sasl}uid of the user.

Core settings

- **Display summary in listings**: Determines whether a status bar will be shown on the bottom of FusionDirectory generated lists, displaying a short summary of type and number of elements in the list.
- **Edit locking**: Enables FusionDirectory to check if a entry currently being edited has been modified from someone else outside FusionDirectory in the meantime. It will display an informative dialog then. It can be set to entryCSN for OpenLDAP based systems or contextCSN for Sun DS based systems.
- **Enable logging**: Enables event logging on FusionDirectory side. Setting it to true, FusionDirectory will log every action a user performs via syslog. If you use rsyslog and configure it to mysql logging, you can browse all events within FusionDirectory.
- **LDAP size limit**: Tells FusionDirectory to retrieve the specified maximum number of results. The user will get a warning, that not all entries were shown.

Login and session

- **Login attribute**: (required) Defines which LDAP attribute is used in Fusiondirectory as the login name during login. It can be set to uid, mail or both.
- **Enforce encrypted connections**: Enables PHP security checks to force encrypted access (https) to the web interface.
- **Warn if session is not encrypted**: Enables PHP security checks to detect non encrypted
access to the web interface. FusionDirectory will display a warning in this case.

- **Session lifetime**: (required) Defines when a session will expire in seconds. For Debian systems, this will not work because the sessions will be removed by a cron job instead. Please modify the value inside of your php.ini instead.
- **HTTP authentification**: Activate HTTP authentification (basic auth).

### Snapshots / Undo

- **Enable snapshots**: This enables you to save certain states of entries and restore them later on.
- **Snapshot base**: Defines the base where snapshots should be stored inside of the LDAP.

### SSL

- **Key path**: Path of the private key for FusionDirectory on the server.
- **Certificate path**: Path of the certificate for FusionDirectory on the server.
- **CA certificate path**: Path of the CA on the server.

### CAS

- **Enable CAS**: Enable CAS activation.
- **CA certificate path**: Path of the CA for the CAS server.
- **Host**: Host of the CAS Server.
- **Port**: Port of the CAS Server.
- **CAS context**: CAS context to be used.

### People and group storage

⚠️ Pay attention to the changes in this section of the configuration ⚠️

- **People DN attribute**: (required) Defines the attribute to use at the beginning of users dn. Possible values are `uid` and `cn`.

In the first case FusionDirectory creates uid style DN entries:

```markdown
uid=superuser,ou=staff,dc=example,dc=net
```

In the second case, FusionDirectory creates cn style DN entries:

```markdown
cn=Foo Bar,ou=staff,dc=example,dc=net
```

If you choose “cn” to be your 'People DN attribute' you can decide whether to include the personal title in your dn by selecting 'Include personal title in user DN'.

- **CN pattern**: The pattern to use to build the common name field.
- **Strict naming policy**: Enables strict checking of uids and group names. If you need characters
like . or - inside of your accounts, don't enable this option.

- **GID/UID min id**: Defines the minimum assignable user or group id to avoid security leaks with uid 0 accounts. This is used for the traditional method.
- **Next id hook**: Defines a script to be called for finding the next free id for users or groups externally.
  The script will receive concerned dn as first argument, and 'uid' or 'gid' as second argument, it should output a single number to use as uidNumber or gidNumber.
- **Number base for people**: Defines where to start looking for a new free user id.
  This should be synced with your adduser.conf to avoid overlapping uidNumber values between local and LDAP based lookups.
  The 'Number base for people' can even be dynamic.
- **Number base for groups**: defines where to start looking for a new free group id.
  This should be synced with your adduser.conf to avoid overlapping gidNumber values between local and LDAP based lookups.
  The 'Number base for groups' can even be dynamic.
- **Users RDN**: (required) Defines the location where new accounts will be created inside of defined departments. The default is ou=people.
- **Groups RDN**: (required) Defines the location where new groups will be created inside of defined departments. The default is ou=groups.
- **ACL role RDN**: The branch where ACL roles are stored.
- **Id allocation method**: Method to allocate user/group ids.
- **Pool user id min**: Minimum value for user id when using pool method.
- **Pool user id max**: Maximum value for user id when using pool method.
- **Pool group id min**: Minimum value for group id when using pool method.
- **Pool group id max**: Maximum value for group id when using pool method.
- **Restrict role members**: When enabled only users from the same branch or members of groups from the same branch can be added to a role.

### Debugging

- **Display errors**: Defines whether to enable the display of PHP errors in the upper part of the screen. This should be disabled in productive deployments, because there might be some passwords in it.
- **Maximum LDAP query time**: Tells FusionDirectory to stop LDAP actions if there is no answer within the specified number of seconds.
- **Log LDAP statistics**: Tells FusionDirectory to track LDAP timing statistics to the syslog. This may help to find indexing problems or bad search filters.
- **Debug level**: Display certains debug informations on each page load.
  Valid values are LDAP, Database, Shell, POST, SESSION, ACL, SI, Mail.
  The different values can also be combined with each other.

### Miscellaneous

- **Hooks**: Defines hooks that are called when specific actions happens. Look here for more informations about hooks configuration.
- **Display hook output**: Activate to display the hook output.
- **Available shells**: Defines the available POSIX shells for FD users.
- **Show ACL tab on all objects**: For very specific ACL rights setting where you might need to give right on a single object.
Available department categories: Available categories in the departments dropdown.
Installation FusionDirectory on Scientific Linux 6

The Fusiondirectory installation needs applications non packaged in the base Scientific Linux distributions. For that it is necessary to use the following package:

```bash
yum install epel-release
```

Import GPG key

Getting the official GPG keys to active package signature

Install FusionDirectory repository

Configure Repository for Scientific Linux 6

Install FusionDirectory and FusionDirectory Schemas

```bash
yum install -y fusiondirectory
yum install -y fusiondirectory-schema schema2ldif
```

//!\ If you use SELinux (same in permisive), you must install fusiondirectory-selinux //!\

Insert FusionDirectory Schemas with this command:

```bash
fusiondirectory-insert-schema
```

Restart apache with this commande:

```bash
service httpd restart
```

Fusiondirectory is now available here: [http://IP/fusiondirectory/](http://IP/fusiondirectory/)
Downloading

Getting the official GPG keys to active package signature

Debian Repository

Debian repositories are available here

Wheezy Repository

http://repos.fusiondirectory.org/debian-wheezy/

jessie Repository

http://repos.fusiondirectory.org/debian-jessie/

This repository contains the oldstable and stable version of FusionDirectory. It also contains the extra packages needed to use FusionDirectory and the Argonaut Framework.

To use the lastest published version for wheezy put this in your /etc/apt/sources.list

```bash
root@fusioninstall:~# vim /etc/apt/sources.list

# fusiondirectory repository
deb http://repos.fusiondirectory.org/debian-wheezy wheezy main

# fusiondirectory debian-extra repository
deb http://repos.fusiondirectory.org/debian-extra wheezy main
```

To use the lastest published version for jessie put this in your /etc/apt/sources.list

```bash
root@fusioninstall:~# vim /etc/apt/sources.list

# fusiondirectory repository
deb http://repos.fusiondirectory.org/debian-jessie jessie main
```

RPM Repository

A repository is available for RHEL / CentOS 6 / Centos7 / Scientific Linux 6 / Scientific Linux7 / SLES 11 SP3

FusionDirectory RPM repository

This repository contains the oldstable and stable version of FusionDirectory. It also contains the extra packages needed to use FusionDirectory and the Argonaut Framework.

To use the lastest published version put this in your yum config:

```bash
```
CentOS 6 / RHEL 6

To use the latest published version put this

```
[fusiondirectory]
name=Fusiondirectory Packages for RHEL / CentOS 6
baseurl=http://repos.fusiondirectory.org/rhel6/RPMS
enabled=1
gpgcheck=1
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-FUSIONDIRECTORY
```

```
[fusiondirectory-extra]
name=Fusiondirectory Packages for RHEL / CentOS 6
baseurl=http://repos.fusiondirectory.org/rhel6-rpm-extra/RPMS/
enabled=1
gpgcheck=1
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-FUSIONDIRECTORY
```

SRPMS are also available in the following repo:

```
[fusiondirectory-src]
name=Fusiondirectory Packages for RHEL / CentOS 6
baseurl=http://repos.fusiondirectory.org/rhel6/SRPMS
enabled=1
gpgcheck=1
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-FUSIONDIRECTORY
```

Scientific Linux 6

To use the latest published version put this

```
[fusiondirectory]
name=Fusiondirectory Packages for Scientific Linux 6
baseurl=http://repos.fusiondirectory.org/sl6/RPMS
enabled=1
gpgcheck=1
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-FUSIONDIRECTORY
```

```
[fusiondirectory-extra]
name=Fusiondirectory Packages for Scientific Linux 6
baseurl=http://repos.fusiondirectory.org/rhel6-rpm-extra/RPMS/
enabled=1
gpgcheck=1
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-FUSIONDIRECTORY
```

SRPMS are also available in the following repo:

```
[fusiondirectory-src]
```
CentOS 7 / RHEL 7

To use the lastest published version put this

```
[fusiondirectory]
name=Fusiondirectory Packages for RHEL / CentOS 7
baseurl=http://repos.fusiondirectory.org/rhel7/RPMS
enabled=1
gpgcheck=1
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-FUSIONDIRECTORY
```

```
[fusiondirectory-extra]
name=Fusiondirectory Packages for RHEL / CentOS 7
baseurl=http://repos.fusiondirectory.org/rhel7-rpm-extra/RPMS/
enabled=1
gpgcheck=1
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-FUSIONDIRECTORY
```

SRPMS are also available in the following repo:

```
[fusiondirectory-src]
name=Fusiondirectory Packages for RHEL / CentOS 7
baseurl=http://repos.fusiondirectory.org/rhel7/SRPMS
enabled=1
gpgcheck=1
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-FUSIONDIRECTORY
```

Scientific Linux 7

To use the lastest published version put this

```
[fusiondirectory]
name=Fusiondirectory Packages for Scientific Linux 7
baseurl=http://repos.fusiondirectory.org/sl7/RPMS
enabled=1
gpgcheck=1
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-FUSIONDIRECTORY
```

```
[fusiondirectory-extra]
name=Fusiondirectory Packages for Scientific Linux 7
baseurl=http://repos.fusiondirectory.org/rhel7-rpm-extra/RPMS/
enabled=1
```
SRPMS are also available in the following repo:

```
[fusiondirectory-src]
name=Fusiondirectory Packages for Scientific Linux 7
baseurl=http://repos.fusiondirectory.org/sl7/SRPMS
enabled=1
gpgcheck=1
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-FUSIONDIRECTORY
```

## Downloading the source

The source download area is here

http://repos.fusiondirectory.org/sources/

## Source Code

The source code is available on github

The project is fusiondirectory

Project FusionDirectory on github
Installation FusionDirectory on Scientific Linux 7

The Fusiondirectory installation needs applications non packaged in the base Scientific Linux distributions. For that it is necessary to use the following package:

```
yum install epel-release
```

Import GPG key

Getting the official GPG keys to active package signature

Install FusionDirectory repository

Configure Repository for Scientific Linux 7

Install FusionDirectory and FusionDirectory Schemas

```
yum install -y fusiondirectory
yum install -y fusiondirectory-schema schema2ldif
```

/!\ If you use SELinux (same in permisive), you must install fusiondirectory-selinux /!\

Insert FusionDirectory Schemas with this command:

```
fusiondirectory-insert-schema
```

Restart apache with this commande:

```
service httpd restart
```

Fusiondirectory is now available here: http://IP/fusiondirectory/

From: https://documentation.fusiondirectory.org/ - FusionDirectory Documentation

Permanent link: https://documentation.fusiondirectory.org/en/documentation/admin_installation_scientificlinux_7

Last update: 2015/10/26 14:22
Installation FusionDirectory on RHEL / Centos 6

The Fusiondirectory installation needs applications non packaged in the base RHEL distributions. For that it is necessary to use the following package:

```
yum install epel-release
```

Install openLDAP server software

Prior to installing FusionDirectory you will need to install/Configure openLDAP server

Import GPG key

Getting the official GPG keys to active package signature

Install FusionDirectory repository

Configure Repository for Redhat/Centos 6

Install prerequisite software

Php-pear-MDB2 does not automatically get installed via dependencies through yum. While Fusiondirectory will install without it, it will warn you later that it is an error.

```
yum install php-pear-MDB2
```

Install FusionDirectory and FusionDirectory Schemas

```
yum install -y fusiondirectory
y whole install -y fusiondirectory-schema schema2ldif
```

//\ If you use SELinux (same in permisive), you must install fusiondirectory-selinux /\ 

Insert FusionDirectory Schemas with this command:

```
fusiondirectory-insert-schema
```

Resolve miscellaneous settings/permission errors

These are housekeeping items that will resolve various errors that aren't taken care of in the initial install but are required to continue on.
First step is to run the following. It checks all your directories and fix's some permissions, creates some odds and ends.

```
fusiondirectory-setup --check-directories --update-cache --update-locales
```

By default your Apache permissions will be wrong on the fusiondirectory folders, and will cause you errors.

```
chgrp -R apache /var/cache/fusiondirectory/*
chmod g+rw /var/cache/fusiondirectory/class.cache
```

Expose_php = on is the default value in /etc/php.ini, but is a security risk. This next step is optional, but you will receive a warning about it later in the web configuration process. There is really no reason **not** to turn it off though

```
sed -i 's/^expose_php = On$/expose_php = Off/g' /etc/php.ini
```

Create a blank fusiondirectory.conf file. RHEL / CentOS installations need a blank file with the correct permissions before it is able to write the correct file later.

```
touch /var/cache/fusiondirectory/template/fusiondirectory.conf
chgrp apache /var/cache/fusiondirectory/template/fusiondirectory.conf
chmod g+rw /var/cache/fusiondirectory/template/fusiondirectory.conf
```

Restart apache with this commande :

```
service httpd restart
```

Fusiondirectory is now available here : **http://IP/fusiondirectory/**, Follow the web configuration process and your server will be ready to go!

Please note your bind account with be:

```
cn=Manager
```

and your password will be whatever you configured as your password in the LDAP installation/configuration steps.

From: [https://documentation.fusiondirectory.org/](https://documentation.fusiondirectory.org/) - **FusionDirectory Documentation**

Permanent link: [https://documentation.fusiondirectory.org/en/documentation/admin_installation_redhat_6](https://documentation.fusiondirectory.org/en/documentation/admin_installation_redhat_6)

Last update: **2016/06/22 15:05**
Installation FusionDirectory on Centos 6

The Fusiondirectory installation needs applications non packaged in the base RHEL distributions. For that it is necessary to use the following package:

```
yum install epel-release
yum install centos-release-scl
```

Install openLDAP server software

Prior to installing FusionDirectory you will need to install/Configure openLDAP server

Import GPG key

Getting the official GPG keys to active package signature

Install FusionDirectory repository

Configure Repository for Redhat/Centos 6

Install FusionDirectory and FusionDirectory Schemas

```
yum install -y fusiondirectory
yum install -y fusiondirectory-schema
```

If you use SELinux don't forgot to install fusiondirectory-selinux

```
yum install -y fusiondirectory-selinux
```

Insert FusionDirectory Schemas with this command:

```
fusiondirectory-insert-schema
```

Restart apache with this commande:

```
service httpd restart
```

Fusiondirectory is now available here: http://IP/fusiondirectory/, Follow the web configuration process and your server will be ready to go!

Please note your bind account with be:

```
 cn=Manager
```
and your password will be whatever you configured as your password in the LDAP installation/configuration steps.
Installation FusionDirectory on Centos 7

The Fusiondirectory installation needs applications non packaged in the base RHEL distributions. For that it is necessary to use the following package:

```bash
yum install epel-release
```

Import GPG key

Getting the official GPG keys to active package signature

Install FusionDirectory repository

Configure Repository for Redhat/Centos 7

Install FusionDirectory and FusionDirectory Schemas

```bash
yum install -y fusiondirectory
yum install -y fusiondirectory-schema schema2ldif
```

/!\ If you use SELinux (same in permisive), you must install fusiondirectory-selinux /!

Insert FusionDirectory Schemas with this command:

```bash
fusiondirectory-insert-schema -i /etc/openldap/schema/cosine.schema
fusiondirectory-insert-schema -i /etc/openldap/schema/inetorgperson.schema
fusiondirectory-insert-schema -i /etc/openldap/schema/nis.schema
```

Restart apache with this commande:

```bash
service httpd restart
```

Fusiondirectory is now available here: `http://IP/fusiondirectory/`
1. Preparation of Openldap server
2. Install packages that we need for FusionDirectory
3. Apache configuration
4. FusionDirectory installation
First, we must install openldap on the system.

```
pacman -S openldap
```

- Add other schemas in slapd.conf

```
include /etc/openldap/schema/core.schema
include /etc/openldap/schema/cosine.schema
include /etc/openldap/schema/inetorgperson.schema
include /etc/openldap/schema/nis.schema
```

- Edit suffix, rootdn and rootpw in slapd.conf if you need it.

```
# Example:
suffix          "dc=my-domain,dc=com"
rootdn          "cn=Manager,dc=my-domain,dc=com"
rootpw          secret
```

- Copy the file DB_CONFIG.example

```
cp /etc/openldap/DB_CONFIG.example /var/lib/openldap/openldap-data/DB_CONFIG
```

- Create '/run/openldap/' with the good rights if it not exist

```
mkdir /run/openldap/
chown ldap:ldap /run/openldap/
```

- Install the backend cn=config

```
systemctl enable slapd
systemctl start slapd
systemctl stop slapd
slaptest -f /etc/openldap/slapd.conf -F /etc/openldap/slapd.d/
```

- Set the good rights and rename slapd.conf

```
chmod -R 0750 /etc/openldap/slapd.d && chown -R ldap:ldap /etc/openldap/slapd.d/
mv /etc/openldap/slapd.conf /etc/openldap/slapd.conf.bak
```

- Enable the systemd service and add the ldapi

```
# Edit to the 'ExecStart' in '/etc/systemd/system/multi-user.target.wants/slapd.service'
ExecStart=/usr/bin/slapd -u ldap -g ldap -h "ldap:/// ldapi:///" -F
/etc/openldap/slapd.d/
systemctl daemon-reload
```

- Add password and modify the restrict ACL

```
# Edit /etc/openldap/slapd.d/cn=config/olcDatabase={}config.ldif
# Add under olcRootDN (you may use slappasswd for the password)
olcRootPW: %password%
```
# Replace olcAccess
olcAccess: {0}to * by
dn.exact=gidNumber=0+uidNumber=0, cn=peercred, cn=external, cn=auth manage by *
break

- Create an ldif to remove the checksum error and apply it

```bash
# file.ldif
dn: olcDatabase={0}config, cn=config
changetype: modify
replace: olcAccess
olcAccess: {0}to * by
dn.exact=gidNumber=0+uidNumber=0, cn=peercred, cn=external, cn=auth manage by *
break
systemctl start slapd
ldapmodify -QY EXTERNAL -D cn=Manager, cn=config -H ldapi:// -W -f file.ldif
```

- Your LDAP is ready for FusionDirectory
You must can install AUR package (in this example, I use 'yaourt')

```bash
# Add this lines in pacman.conf
[archlinuxfr]
SigLevel = Never
Server = http://repo.archlinux.fr/$arch
# After install 'yaourt'
pacman -Syu yaourt
```

- I use here apache 2.2, but you may use apache 2.4 if you will

- Packages with pacman

```bash
pacman -S perl-path-class perl-ldap perl-mime-base64 perl-crypt-passwdmd5 perl-crypt-cbc perl-file-copy-recursive perl-xml-twig perl-archive-extract perl-extutils-makemaker
```

- Packages in AUR

```bash
yaourt -S php-imagick smarty3 apache22 php-apache22 javascript-common
```
• On this page you will configure apache and php

• Activate the php extensions

```bash
# Edit /etc/php/php.ini and uncomment these lines
extension=iconv.so
extension=imap.so
extension=ldap.so
extension=gd.so
# Edit /etc/php/conf.d/imagick.ini and uncomment the next line
extension=imagick.so
```

• open_basedir extension for php (in /etc/php/php.ini)

```bash
# Add FusionDirectory directories
/var/spool/fusiondirectory/
/var/cache/fusiondirectory/
/etc/fusiondirectory/
# And php librarys
/usr/share/php/
```

• Apache

```bash
# Edit /etc/httpd/conf/httpd.conf
# Add the php7 module
LoadModule php7_module modules/libphp7.so
Include conf/extra/php7_module.conf
# Add javascript-common
Include conf/extra/httpd-javascript-common.conf
# Add fusiondirectory
Include conf/extra/httpd-fusiondirectory.conf
```
- Install FusionDirectory packages of AUR
  
  `yaourt -S fusiondirectory fusiondirectory-schema`
  
  - Add the includes line in httpd.conf when it is ask

  ```
  # After the install must you have these lines in httpd.conf
  Include conf/extra/httpd-javascript-common.conf
  Include conf/extra/httpd-fusiondirectory.conf
  ```
  
  - Start and enable apache server

  `systemctl enable httpd`
  `systemctl start httpd`
  
  - Check FusionDirectory directories and insert schemas

  ```
  # Apache default group is normally http
  fusiondirectory-setup --yes --check-directories
  fusiondirectory-insert-schema
  ```
  
  - Go to the next URL for continue the install

  `http://%IP%/fusiondirectory`
Installation FusionDirectory on SLES

Install FusionDirectory repository

```bash
zypper ar -f -c -n FusionDirectory-Extra
zypper ar -f -c -n FusionDirectory
http://repos.fusiondirectory.org/sles/RPMS/ FusionDirectory
```

Import GPG key

Getting the official GPG keys to active package signature

Install some application not in official repository

- php5-imagick (server php)
- Prototype
- php5-smarty3 (server php)
- Scriptaculous

Install openldap

```bash
zypper install openldap2 yast2-ldap-server
```

yast2 and configure your ldap server

Install FusionDirectory and FusionDirectory Schemas

```bash
zypper install fusiondirectory
zypper install fusiondirectory-schema
```

Insert FusionDirectory schemas

```bash
fusiondirectory-insert-schema
```

Restart apache with this command

```bash
service apache2 restart
```

Fusiondirectory is now available here : http://IP/fusiondirectory/
FusionDirectory 1.0 Install From Sources

Prerequisite:

You have a system up and running. It has apache and PHP 5.4.0 minimum installed with smarty 3 and there is a blank (or prefilled) LDAP server available.

You have installed the following perl libraries:

- Path::Class
- Net::LDAP
- MIME::Base64
- Crypt::PasswdMD5
- Crypt::CBC
- File::Copy::Recursive
- Archive::Extract
- XML::Twig

You have installed the following runtime deps (without it can provoke graphical bugs):

- scriptaculous available at http://script.aculo.us/downloads
- Prototype available at http://prototypejs.org/download/

You have installed the following library:

- Smarty3-i18n available at http://repos.fusiondirectory.org/sources/1.0/smarty3-i18n/

The following tool:

- Schema2ldif http://repos.fusiondirectory.org/sources/1.0/schema2ldif/

Downloading FusionDirectory

- Get the fusiondirectory tarballs from http://download.fusiondirectory.org/sources/1.0/fusiondirectory

  ```
  wget http://repos.fusiondirectory.org/sources/1.0/fusiondirectory/fusiondirectory-1.0.x.tar.gz
  wget http://repos.fusiondirectory.org/sources/1.0/fusiondirectory/fusiondirectory-plugins-1.0.x.tar.gz
  ```

  X here being the latest version available

- Get the checksums file to be sure that the file where not corrupted
wget http://repos.fusiondirectory.org/sources/1.0/fusiondirectory/CHECKSUM.MD5

- Compare the md5sum from fusiondirectory-1.0.x.tar.gz and fusiondirectory-plugins-1.0.x.tar.gz to the md5sum in CHECKSUM.MD5

  cat CHECKSUM.MD5

  md5sum fusiondirectory-1.0.x.tar.gz

  md5sum fusiondirectory-plugins-1.0.x.tar.gz

## Installing FusionDirectory Core

- Unpack the FusionDirectory tarball and move the main fusiondirectory directory to a place your webserver is configured to find it. On most of the case this will be /var/www/fusiondirectory. Our fusiondirectory-setup script use /var/www/fusiondirectory like default path. For example, if you need to change the global path of FusionDirectory installation you can modify the variable 'fd_home':

  fusiondirectory-setup --set-fd_home="/usr/share/fusiondirectory" --write-vars

  will change the path of your FusionDirectory installation. *Please note that --write-vars combined with --set-<variable_name>=<your data> will write your changes to the variables.inc file, so it's mandatory to use them together.*

- Move the content of contrib/bin directory in /usr/local/bin

  chmod 750 /var/www/fusiondirectory/contrib/bin/*

  mv /var/www/fusiondirectory/contrib/bin/* /usr/local/bin/

- Create if needed the man5 and man1 directories in /usr/local/man

  mkdir /usr/local/man/man1

  mkdir /usr/local/man/man5

- Compress the manpages

  gzip /var/www/fusiondirectory/contrib/man/fusiondirectory.conf.5

  gzip /var/www/fusiondirectory/contrib/man/fusiondirectory-setup.1

  gzip /var/www/fusiondirectory/contrib/man/fusiondirectory-insert-schema.1

- Move the man pages to the right place

  mv /var/www/fusiondirectory/contrib/man/fusiondirectory-setup.1.gz
/usr/local/man/man1
  mv /var/www/fusiondirectory/contrib/man/fusiondirectory-insert-schema.1.gz /usr/local/man/man1/
  mv /var/www/fusiondirectory/contrib/man/fusiondirectory.conf.5.gz /usr/local/man/man5

- Create the symbolic links for the fusiondirectory smarty functions
  Check that your smarty dir is in /usr/share/php/smarty or adapt the path accordingly


Note: /usr/share/php/smarty/plugins might be /usr/share/php/smarty3/plugins on your system

- Remove the library for accessing databases if you don't need access to the plugins needing it

  rm -f /var/www/fusiondirectory/include/class_databaseManagement.inc

- Create the directory to store your fusiondirectory schemas

  mkdir <your-ldap-schema-directory>/fusiondirectory

- Move the needed schema from contrib to your ldap server schema directory

  mv /var/www/fusiondirectory/contrib/openldap/*.schema <your-ldap-schema-directory>/fusiondirectory

- Add the required schema

  fusiondirectory-insert-schema

- check what schema are installed

  fusiondirectory-insert-schema -l
core
cosine
nis
inetorgperson
samba
core-fd
core-fd-conf
ldapns
recovery-fd
Those are the core basic schema needed

- Run the fusiondirectory-setup

```
fusiondirectory-setup --check-directories --update-cache --update-locales
```

*Please note that if you changed the path of your FusionDirectory installation you will need to type the following commands:*

```
fusiondirectory-setup --set-fd_home=<your path> --check-directories --update-cache --update-locales
```

- Copy the file fusiondirectory.conf to /var/cache/fusiondirectory/template

```
mv /var/www/fusiondirectory/contrib/fusiondirectory.conf /var/cache/fusiondirectory/template/
```

### Installing FusionDirectory Plugins

- Run the fusiondirectory-setup

```
fusiondirectory-setup --install-plugins --check-directories --update-locales --update-cache
```

*Please note that if you changed the path of your FusionDirectory installation you will need to type the following commands:*

```
fusiondirectory-setup --set-fd_home=<your path> --write-vars --install-plugins --check-directories --update-locales --update-cache
```

- Copy the two file from argonaut/include into the global FusionDirectory include directory

```
cp argonaut/include/class_supportDaemon.inc /var/www/fusiondirectory/include
    cp argonaut/include/jsonRPCClient.php /var/www/fusiondirectory/include
```

- Remove the asterisk, fax, rsyslog plugins if you removed the database management library when installing the core

```
rm -Rf /var/www/fusiondirectory/plugins/personal/faxaccount/
rm -Rf /var/www/fusiondirectory/plugins/admin/blocklists/
rm -Rf /var/www/fusiondirectory/plugins/addons/faxreports/
rm -Rf /var/www/fusiondirectory/plugins/personal/phoneaccount/
rm -Rf /var/www/fusiondirectory/plugins/addons/fonreports/
```
Please note that if you changed the path of your FusionDirectory installation you will need to type the following commands:

```
rm -Rf /var/www/fusiondirectory/plugins/admin/conference/
rm -Rf /var/www/fusiondirectory/plugins/admin/macro/
rm -Rf /var/www/fusiondirectory/plugins/addons/rsyslog/
fusiondirectory-setup --update-locales --update-cache
```

- Install the schema for the ldap configuration backend of all the plugins

```
fusiondirectory-insert-schema -i
/var/www/fusiondirectory/contrib/openldap/*fd-conf.schema
```

- Install the schema(s) for the each plugin you have installed

```
fusiondirectory-insert-schema -i
/var/www/fusiondirectory/contrib/openldap/<plugin>.schema
```

- Copy the file from contrib/apache to the apache site configuration dir:

```
mv /var/www/fusiondirectory/contrib/apache/fusiondirectory-
apache.conf <your-apache-configuration-directory>
```

- Reload your apache web server
- http[s]://your-server/fusiondirectory

FusionDirectory setup will perform some basic system checks about general prerequisites. The setup asks some questions and provides a basic fusiondirectory.conf to save in /etc/fusiondirectory. Follow the instructions until you're able to log in.

You're done. Let's play with the GUI.

For the installation via the web interface see here

**Further information**

To improve this piece of software, please report all kind of errors using the bug tracker on https://forge.fusiondirectory.org

Website: http://www.fusiondirectory.org/

Documentation: http://documentation.fusiondirectory.org/

Irc channel: #fusiondirectory on freenode

Have fun!

The FusionDirectory project [contact@fusiondirectory.org](mailto:contact@fusiondirectory.org)
**SELinux**

By default, on RHEL Distributions, Fusiondirectory have a risk of not functioning correctly due to the activation of SE Linux.

To allow Fusiondirectory to run, there is two possibilities:

- turn off SE Linux
- Install the RPM package fusiondirectory-selinux: `yum install fusiondirectory-selinux`

Once this package installed, it's recommended to refresh the cache and the locales who cannot be updated due to the default SE Linux policy.

**For Fusiondirectory >= 1.0.2**

```
# fusiondirectory-setup --update-cache --update-locales
```

In any case it is necessary to restart the apache server after the update:

```
# /etc/init.d/apache restart
```

From: https://documentation.fusiondirectory.org/ - FusionDirectory Documentation

Permanent link: https://documentation.fusiondirectory.org/en/documentation/admin_installation_selinux

Last update: 2014/09/07 19:12
Migrate FusionDirectory from 1.0.1 to 1.0.2

Remove fusiondirectory-plugin-opsi

Before migration from FusionDirectory 1.0.1 to 1.0.2 is important to remove the fusiondirectory-plugin-opsi and fusiondirectory-plugin-log to avoid errors:

Debian

```
root@fusion-install:~# apt-get remove fusiondirectory-plugin-opsi
root@fusion-install:~# apt-get remove fusiondirectory-plugin-log
```

RHEL / Fedora

Not Applicable

Upgrade fusiondirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

Debian

```
root@fusion-install:~# apt-get update
root@fusion-install:~# apt-get install fusiondirectory
root@fusion-install:~# apt-get upgrade
```

RHEL / Fedora

```
# yum makecache
# yum upgrade fusiondirectory
```
Migrate FusionDirectory from 1.0.2 to 1.0.3

Remove fusiondirectory-plugin-goto

Before migration from FusionDirectory 1.0.2 to 1.0.3 is important to remove the fusiondirectory-plugin-goto, fusiondirectory-plugin-mit-krb5 and fusiondirectory-plugin-phpgw to avoid errors:

Debian

```
root@fusion-install:~# apt-get remove fusiondirectory-plugin-goto
root@fusion-install:~# apt-get remove fusiondirectory-plugin-mit-krb5
root@fusion-install:~# apt-get remove fusiondirectory-plugin-phpgw
```

RHEL / Fedora

Not Applicable

Upgrade fusiondirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

Debian

```
root@fusion-install:~# apt-get update
root@fusion-install:~# apt-get install fusiondirectory
root@fusion-install:~# apt-get upgrade
```

RHEL / Fedora

```
# yum makecache
# yum upgrade fusiondirectory
```

Run setup

Starting with version 1.0.3, the addition of a plugin is handled automatically by fusiondirectory. To activate this you have to re-run the setup from the web interface.

```
root@fusion-install:~# mv /etc/fusiondirectory/fusiondirectory.conf
/etc/fusiondirectory/fusiondirectory.conf.back
```
Then from web interface type:

http://your_server/fusiondirectory/setup.php

and fill the required information.
Migrate FusionDirectory from 1.0.3 to 1.0.4

Upgrade fusiondirectory first

Upgrade FusionDirectory core package and fusiondirectory-plugin-systems (if it's installed) before other ones to avoid dependencies errors:

Debian

```
root@fusion-install:~# apt-get update
root@fusion-install:~# apt-get install fusiondirectory
root@fusion-install:~# apt-get install fusiondirectory-plugin-systems
root@fusion-install:~# apt-get upgrade
```

Main page is changed

Starting with version 1.0.4, the main page of FusionDirectory interface is changed. From now, the main menu will be displayed in the following order:

- Administration
- Addons
- My Account

To adapt to change, you have 2 ways :

- Re-run setup
- Change data manually in fusiondirectory.conf

Re-run setup

Before you re-run the setup from the web interface, you must do this :

```
root@fusion-install:~# mv /etc/fusiondirectory/fusiondirectory.conf /etc/fusiondirectory/fusiondirectory.conf.back
```

Then from web interface type :

http://your_server/fusiondirectory/setup.php

and fill the required information.

Change data manually in fusiondirectory.conf

In fusiondirectory.conf file, in the menu part, you must place sections in this order :
Upgrade of LDAP directory

You have to update your LDAP schema, FusionDirectory provide you dedicated LDIF file for updating your LDAP tree. If you are still using .schema files a restart of your ldap server should be sufficient.

The files to apply to your OpenLDAP server, there are stored in
“/etc/ldap/schema/fusiondirectory/update-from-1.0.3”

root@fusion-install:~# ls -l /etc/ldap/schema/fusiondirectory/update-from-1.0.3/*
/etc/ldap/schema/fusiondirectory/update-from-1.0.3/remove-trust.ldif
/etc/ldap/schema/fusiondirectory/update-from-1.0.3/update-argonaut.ldif
/etc/ldap/schema/fusiondirectory/update-from-1.0.3/update-fdQuota.ldif
/etc/ldap/schema/fusiondirectory/update-from-1.0.3/update-goserver.ldif
/etc/ldap/schema/fusiondirectory/update-from-1.0.3/update-goto.ldif
/etc/ldap/schema/fusiondirectory/update-from-1.0.3/update-recovery.ldif

Remove trust schema

If in a previous version of FusionDirectory you have installed trust schema, you need to remove it. For this you can use remove-trust.ldif.

Because we can not predict the order of schema insertion in your ldap directory, you need to modify the provided remove-trust.ldif.

1. Identify the number of insertion of the trust schema in your ldap directory:

```bashoot@fusion-install:~# ldapsearch -Y EXTERNAL -H ldapi:/// -LLL -b cn=schema,cn=config | grep "dn: cn={"
...
dn: cn={29}trust,cn=schema,cn=config
...
```

2. edit the remove-trust.ldif file:

```bashoot@fusion-install:~# nano /etc/ldap/schema/fusiondirectory/update-from-1.0.3/remove-trust.ldif

dn: cn=trust,cn=schema,cn=config
...
```

and add the find number {29} at the first line, like this:

```bash
dn: cn={29}trust,cn=schema,cn=config
```
3. Run the fusiondirectory-insert-schema command:

```
root@fusion-install:~# fusiondirectory-insert-schema -i /etc/ldap/schema/fusiondirectory/update-from-1.0.3/remove-trust.ldif
```

SASL/EXTERNAL authentication started
SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth
SASL SSF: 0
executing 'ldapadd -Y EXTERNAL -H ldapi:/// -f /etc/ldap/schema/fusiondirectory/update-from-1.0.3/remove-trust.ldif'SASL/EXTERNAL authentication started
SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth
SASL SSF: 0
modifying entry "cn={29}trust,cn=schema,cn=config"

**Update needed fusiondirectory schema**

The following needed schema:

- goserver
- goto
- recovery

must be upgraded.

Because we can not predict the order of schema insertion in your ldap directory, you need to modify the provided update-goserver.ldif, update-goto.ldif, update-recovery.ldif.

For exemple, for goserver schema:

1. Identify the number of insertion of the goserver schema in your ldap directory:

   ```
   root@fusion-install:~# ldapsearch -Y EXTERNAL -H ldapi:/// -LLL -b cn=schema,cn=config | grep "dn: cn={"
   ...
   dn: cn={9}goserver,cn=schema,cn=config
   ...
   ```

2. edit the update-goserver.ldif file:

   ```
   root@fusion-install:~# nano /etc/ldap/schema/fusiondirectory/update-from-1.0.3/update-goserver.ldif
   dn: cn=goserver,cn=schema,cn=config
   ...
   ```

   and add the find number {9} at the first line, like this:
3. Run the fusiondirectory-insert-schema command:

```bash
root@fusion-install:~# fusiondirectory-insert-schema -i
/etc/ldap/schema/fusiondirectory/update-from-1.0.3/update-goserver.ldif
```

SASL/EXTERNAL authentication started
SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth
SASL SSF: 0
executing 'ldapadd -Y EXTERNAL -H ldapi:/// -f
/etc/ldap/schema/fusiondirectory/update-from-1.0.3/update-goserver.ldif'SASL/EXTERNAL authentication started
SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth
SASL SSF: 0
modifying entry "cn={9}goserver,cn=schema,cn=config"

You must do the same for goto et recovery also.

**Upgrade argonaut schema**

If you've installed **argonaut** plugin, you must upgrade his schema.

Because we can not predict the order of schema insertion in your ldap directory, you need to modify the provided update-argonaut.ldif.

1. Identify the number of insertion of the argonaut schema in your ldap directory:

```bash
root@fusion-install:~# ldapsearch -Y EXTERNAL -H ldapi:/// -LLL -b cn=schema,cn=config | grep "dn: cn={"
```

```
... 
 dn: cn={14}argonaut,cn=schema,cn=config 
 ...
```

2. edit the update-argonaut.ldif file:

```bash
root@fusion-install:~# nano /etc/ldap/schema/fusiondirectory/update-from-1.0.3/update-argonaut.ldif 
```

```bash
dn: cn=argonaut,cn=schema,cn=config 
```

and add the find number {14} at the first line, like this:

```bash
dn: cn={14}argonaut,cn=schema,cn=config 
```
3. Run the fusiondirectory-insert-schema command:

root@fusion-install:~# fusiondirectory-insert-schema -i
/etc/ldap/schema/fusiondirectory/update-from-1.0.3/update-argonaut.ldif

SASL/EXTERNAL authentication started
SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth
SASL SSF: 0
executing 'ldapadd -Y EXTERNAL -H ldapi:/// -f
/etc/ldap/schema/fusiondirectory/update-from-1.0.3/update-argonaut.ldif'SASL/EXTERNAL authentication started
SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth
SASL SSF: 0
modifying entry "cn={14}argonaut,cn=schema,cn=config"

Upgrade fdQuota schema

If you've installed quota plugin, you must upgrade fdQuota schema.

Because we can not predict the order of schema insertion in your ldap directory, you need to modify the provided update-fdQuota.ldif.

1. Identify the number of insertion of the fdQuota schema in your ldap directory:

root@fusion-install:~# ldapsearch -Y EXTERNAL -H ldapi:/// -LLL -b cn=schema,cn=config | grep "dn: cn={"

... 
... 
dn: cn={25}fdQuota,cn=schema,cn=config
...

2. edit the update-fdQuota.ldif file:

root@fusion-install:~# nano /etc/ldap/schema/fusiondirectory/update-from-1.0.3/update-fdQuota.ldif

dn: cn=fdQuota,cn=schema,cn=config
...

and add the find number {25} at the first line, like this:

dn: cn={25}fdQuota,cn=schema,cn=config
...

3. Run the fusiondirectory-insert-schema command:

root@fusion-install:~# fusiondirectory-insert-schema -i
/etc/ldap/schema/fusiondirectory/update-from-1.0.3/update-fdQuota.ldif
SASL/EXTERNAL authentication started
SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth
SASL SSF: 0
executing 'ldapadd -Y EXTERNAL -H ldapi:/// -f
/etc/ldap/schema/fusiondirectory/update-from-1.0.3/update-fdQuota.ldif'SASL/EXTERNAL authentication started
SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth
SASL SSF: 0
modifying entry "cn={25}fdQuota,cn=schema,cn=config"
Migrate FusionDirectory from 1.0.4 to 1.0.5

Clean FusionDirectory schema directory

Debian

```
# rm /etc/ldap/schema/fusiondirectory/*.ldif
```

Upgrade of LDAP directory

Install schema packages

Upgrade new schema core first:

Debian

```
# apt-get update
# apt-get install fusiondirectory-schema
```

Then, depending of your installation, install new schema packages for your installed plugins.

For example, if you have Systems, Dhcp and Dns plugin installed, you need to:

Debian

```
# apt-get install fusiondirectory-plugin-systems-schema
# apt-get install fusiondirectory-plugin-dhcp-schema
# apt-get install fusiondirectory-plugin-dns-schema
```

See the list to know which schemas are needed for the plugins.

Remove old schema from your Ldap Directory

Your installed schema are in /etc/ldap/slapd.d/cn=config/cn=schema directory. For the above example, installed schema will be the following:

Debian

```
# ldapsearch -Y EXTERNAL -H ldapi:/// -LLL -b cn=schema,cn=config | grep
```
"dn: cn={" SASL/EXTERNAL authentication started
SASL username: gidNumber=0+uidNumber=0,cn=peercred,cn=external,cn=auth
SASL SSF: 0
dn: cn={0}core,cn=schema,cn=config
dn: cn={1}cosine,cn=schema,cn=config
dn: cn={2}nis,cn=schema,cn=config
dn: cn={3}inetorgperson,cn=schema,cn=config
dn: cn={4}samba,cn=schema,cn=config
dn: cn={5}gosystem,cn=schema,cn=config
dn: cn={6}gofon,cn=schema,cn=config
dn: cn={7}gofax,cn=schema,cn=config
dn: cn={8}goto,cn=schema,cn=config
dn: cn={9}goserver,cn=schema,cn=config
dn: cn={10}goto-mime,cn=schema,cn=config
dn: cn={11}gosa-samba3,cn=schema,cn=config
dn: cn={12}ldapns,cn=schema,cn=config
dn: cn={13}recovery,cn=schema,cn=config
dn: cn={14}dhcp,cn=schema,cn=config
dn: cn={15}dnszone,cn=schema,cn=config

Schema's from 'cn={0}...' to 'cn={3}' doesn't change, so you can leave it.

Now you need to remove all others before install the new one's. You can start to remove before plugin schemas. Doing this is simple, just delete its relative file in the folder
'etc/ldap/slapd.d/cn=confi
# rm cn\={15}dnszone.ldif
# rm cn\={14}dhcp.ldif
# /etc/init.d/slapd stop
# /etc/init.d/slapd start

If everything goes right, you can remove core schemas:

# rm cn\={13}recovery.ldif
# rm cn\={12}ldapns.ldif
# rm cn\={11}gosa-samba3.ldif
# rm cn\={10}goto-mime.ldif
# rm cn\={9}goserver.ldif
# rm cn\={8}goto.ldif
# rm cn\={7}gofax.ldif
# rm cn\={6\}gofon.ldif
# rm cn\={5\}gosystem.ldif
# rm cn\={4\}samba.ldif
# /etc/init.d/slapd stop
# /etc/init.d/slapd start

Insert new schemas inside your Ldap Directory

First of all insert the new core schemas:

Debian

# fusiondirectory-insert-schema

Then you can proceed for all the plugins schemas (here you can find a list of available plugins with old and new relative schemas), for the above example:

Debian

# fusiondirectory-insert-schema -i /etc/ldap/schema/fusiondirectory/service-fd.schema
# fusiondirectory-insert-schema -i /etc/ldap/schema/fusiondirectory/systems-fd-conf.schema
# fusiondirectory-insert-schema -i /etc/ldap/schema/fusiondirectory/mime-fd.schema
# fusiondirectory-insert-schema -i /etc/ldap/schema/fusiondirectory/systems-fd.schema
# fusiondirectory-insert-schema -i /etc/ldap/schema/fusiondirectory/dhcp-fd.schema
# fusiondirectory-insert-schema -i /etc/ldap/schema/fusiondirectory/dnszone.schema

Upgrade fusiondirectory first

Upgrade FusionDirectory core package and fusiondirectory-plugin-systems (if it's installed) before other ones to avoid dependencies errors:

Debian

# apt-get install fusiondirectory
# apt-get install fusiondirectory-plugin-systems
# apt-get upgrade
Configuration file is changed

Starting with version 1.0.5, the configuration of FusionDirectory is stored inside the ldap, in 'configs' branch.

To adapt to this change, you need to Re-run setup.

Re-run setup

Before you re-run the setup from the web interface, you must move your old configuration file, doing this:

```
root@fusion-install:~# mv /etc/fusiondirectory/fusiondirectory.conf /etc/fusiondirectory/fusiondirectory.conf.back
```

Then, in your web browser, you can type:

```
http://your_server/fusiondirectory/setup.php
```

and fill the required informations (look here to see more about parameters of configuration).

Possible problems and related solutions

Below you will find some migration issues, grouped by plugin, with their solutions.

FAI plugin

Before save modifications in a Server, look (inside your ldap directory) if there is an objectClass FAI like this one, associated at this Server:

```
objectClass: FAIObject
```

if you don't find any other FAI attribute for this Server, you need to remove the above mentioned objectClass, in order to avoid automatic generation of FAI attributes in related entry. This happens because 'objectClass: FAIObject' means that FAI tab for the related server is activated.

Mail plugin

unrecognized objectClass 'goMailServer'

If you get an error like this:

```
LDAP operation failed!
```
**Object: cn=mailserver.opensides.be,ou=servers,ou=systems,dc=opensides,dc=be**

**Error: Object class violation (unrecognized objectClass 'goMailServer', while operating on 'cn=mailserver.opensides.be,ou=servers,ou=systems,dc=opensides,dc=be' using LDAP server 'ldap://localhost:389')**

This means that in your related ldap entry you have an objectClass like this:

```
objectClass: goMailServer
```

You need to modify this one to:

```
objectClass: fdPostfixServer
```

**Undefined attribute type - attribute: flag_enable_debug**

If you get an error like this:

```
LDAP operation failed!
Object: cn=mailserver.opensides.be,ou=servers,ou=systems,dc=opensides,dc=be
Error: Undefined attribute type - attribute: flag_enable_debug
(flag_enable_debug: AttributeDescription contains inappropriate characters, while operating on 'cn=mailserver.opensides.be,ou=servers,ou=systems,dc=opensides,dc=be' using LDAP server 'ldap://localhost:389')
```

This means that in your related ldap entry you have an attribute like this:

```
avFlags: DS
```

You need to remove this attribute.
Migrate FusionDirectory from 1.0.6 to 1.0.7

Upgrade fusiondirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

Debian

Add new debian-extra repo to you source list

```
deb http://repos.fusiondirectory.org/debian-extra wheezy main
```

```
root@fusion-install:~# apt-get update
root@fusion-install:~# apt-get install fusiondirectory
root@fusion-install:~# apt-get upgrade
```

Upgrade of LDAP directory

You have to update your LDAP schemas, first update the FusionDirectory core schemas. We have put a new option in fusiondirectory-insert-schema that allow you to update easily your schema without the use of ldif files.

The following schemas needs an update :

- core-fd-conf.schema
- mail-fd.schema
- service-fd.schema
- systems-fd-conf.schema
- systems-fd.schema

```
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/core-fd-conf.schema
```

You must do the same procedure for all other schema needing an update
Migrate FusionDirectory from 1.0.7 or 1.0.7.1 to 1.0.7.2

Upgrade FusionDirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

Upgrade of LDAP directory

You have to update your LDAP schemas, first update the FusionDirectory core schemas. We have put a new option in fusiondirectory-insert-schema that allow you to update easily your schema without the use of ldif files.

```
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/core-fd-conf.schema
```
Migrate FusionDirectory from 1.0.7.2 to 1.0.7.3

Upgrade FusionDirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

Upgrade of LDAP directory

You have to update your LDAP schemas, first update the FusionDirectory core schemas. We have put a new option in fusiondirectory-insert-schema that allow you to update easily your schema without the use of ldif files.

In this version only the schema from the argonaut plugin needs to be update if you have the systems or argonaut plugins installed

```
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/argonaut-fd.schema
```
Migrate FusionDirectory from 1.0.7.3 to 1.0.7.4

Upgrade FusionDirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

From:
https://documentation.fusiondirectory.org/ - FusionDirectory Documentation

Permanent link:
https://documentation.fusiondirectory.org/en/documentation/admin_installation_migration_1.0.7.4

Last update: 2014/06/27 21:16
Migrate FusionDirectory from 1.0.7.4 to 1.0.7.5

Upgrade FusionDirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors.
Migrate FusionDirectory from 1.0.7.4 to 1.0.8

Upgrade FusionDirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

```
apt-get install fusiondirectory
```

Upgrade FusionDirectory schema package too.

```
apt-get install fusiondirectory-schema
```

Remove the deprecated plugins

The rolemanagement plugin has been integrated to the core so it must be removed.

```
apt-get --purge remove fusiondirectory-plugin-rolemanagement
```

The board plugin has been renamed so it must be replaced

```
apt-get --purge remove fusiondirectory-plugin-board
```

```
apt-get install fusiondirectory-plugin-dashboard
```

Upgrade of LDAP directory

You have to update your LDAP schemas, first update the FusionDirectory core schemas.

```
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/core-fd.schema
```

```
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/core-fd-conf.schema
```

After that you have to update the schema for the plugins you are using. In this version the following schema have to be updated

- argonaut-fd-schema
- ipmi-fd.schema
- repository-fd.schema

Migration of the FusionDirectory acls

FusionDirectory acl management has been changed from 1.0.7 to 1.0.8, so they need to be migrated.
We added a command to fusiondirectory-setup for that.

```
fusiondirectory-setup --migrate-acls
```

⚠️ This is tricky, don't forget to write down your acl first in case it doesn't work ⚠️
Migrate FusionDirectory from 1.0.8.1 to 1.0.8.2

Upgrade FusionDirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

```
apt-get install fusiondirectory
```

Upgrade FusionDirectory schema package too.

```
apt-get install fusiondirectory-schema
```

Check for deprecated attributes and objectClasses in your LDAP

since FusionDirectory 1.0.8.1 two new options are in fusiondirectory-setup

```
fusiondirectory-setup --list-deprecated
List deprecated attributes and objectclasses
Deprecation attributes:
gosaUnitTag                    (Takes a list of relevant mime-type|priority settings)          - 1.3.6.1.4.1.10098.1.1.12.33
gosaSnapshotType               (Takes either undo or snapshot) - 1.3.6.1.4.1.10098.1.1.12.36
fdHonourUnitTags               (FusionDirectory - Honour unit tags) - 1.3.6.1.4.1.38414.8.14.3
Deprecation objectClasses:
gosaAdministrativeUnitTag      (Marker for objects below administrative units (v2.6.1)) - 1.3.6.1.4.1.10098.1.2.1.19.16
gosaAdministrativeUnit         (Marker for administrative units (v2.6.1)) - 1.3.6.1.4.1.10098.1.2.1.19.15
```

```
fusiondirectory-setup --list-deprecated
show deprecated attributes and objectClasses for FusionDirectory
```

```
fusiondirectory-setup --check-deprecated
List LDAP entries using deprecated attributes or objectclasses
There are no entries in the LDAP using obsolete attributes
There are no entries in the LDAP using obsolete classes
```

```
fusiondirectory-setup --check-deprecated
will output an ldif file on the console that you can use with ldapmodify to clean you ldap server from old attributes and objectClasses
```

Please read it carefully before applying 📄 📄
Migrate FusionDirectory from 1.0.8.2 to 1.0.8.3

Upgrade FusionDirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

```bash
apt-get install fusiondirectory
```

Upgrade FusionDirectory schema package too.

```bash
apt-get install fusiondirectory-schema
```

Upgrade of LDAP directory

You have to update your LDAP schemas, first update the FusionDirectory core schemas.

```bash
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/core-fd.schema

fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/core-fd-conf.schema
```

Check for deprecated attributes and objectClasses in your LDAP

since FusionDirectory 1.0.8.1 two new options are in fusiondirectory-setup

```bash
fusiondirectory-setup --list-deprecated
List deprecated attributes and objectclasses
```

Deprecated attributes:
- `gosaUnitTag`  
  Takes a list of relevant mime-type|priority settings
  - 1.3.6.1.4.1.10098.1.1.12.33
- `gosaSnapshotType`  
  Takes either undo or snapshot
  - 1.3.6.1.4.1.10098.1.1.12.36
- `fdHonourUnitTags`  
  FusionDirectory - Honour unit tags
  - 1.3.6.1.4.1.38414.8.14.3

Deprecated objectClasses:
- `gosaAdministrativeUnitTag`  
  Marker for objects below administrative units (v2.6.1)
  - 1.3.6.1.4.1.10098.1.2.1.19.16
- `gosaAdministrativeUnit`  
  Marker for administrative units (v2.6.1)
  - 1.3.6.1.4.1.10098.1.2.1.19.15

```bash
fusiondirectory-setup -list-deprecated
```

show deprecated attributes and objectClasses for FusionDirectory
fusiondirectory-setup --check-deprecated
List LDAP entries using deprecated attributes or objectclasses
There are no entries in the LDAP using obsolete attributes
There are no entries in the LDAP using obsolete classes

fusiondirectory-setup -check-deprecated will output an ldif file on the console that you can use with ldapmodify to clean you ldap server from old attributes and objectClasses

Please read it carefully before applying 📖 📖
Migrate FusionDirectory from 1.0.8.3 to 1.0.8.4

Upgrade FusionDirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

```bash
apt-get install fusiondirectory
```

Upgrade FusionDirectory schema package too.

```bash
apt-get install fusiondirectory-schema
```

Check for deprecated attributes and objectClasses in your LDAP

since FusionDirectory 1.0.8.1 two new options are in fusiondirectory-setup

```bash
fusiondirectory-setup --list-deprecated
List deprecated attributes and objectclasses

 Deprecated attributes:
  gosaUnitTag                     (Takes a list of relevant mime-type|priority settings)  - 1.3.6.1.4.1.10098.1.1.12.33
  gosaSnapshotType               (Takes either undo or snapshot)  - 1.3.6.1.4.1.10098.1.1.12.36
  fdHonourUnitTags               (FusionDirectory - Honour unit tags)  - 1.3.6.1.4.1.38414.8.14.3

 Deprecated objectClasses:
  gosaAdministrativeUnitTag      (Marker for objects below administrative units (v2.6.1))  - 1.3.6.1.4.1.10098.1.2.1.19.16
  gosaAdministrativeUnit         (Marker for administrative units (v2.6.1))  - 1.3.6.1.4.1.10098.1.2.1.19.15
```

```bash
fusiondirectory-setup --check-deprecated
List LDAP entries using deprecated attributes or objectclasses
There are no entries in the LDAP using obsolete attributes
There are no entries in the LDAP using obsolete classes
```

`fusiondirectory-setup --check-deprecated` will output an ldif file on the console that you can use with ldapmodify to clean you ldap server from old attributes and objectClasses

Please read it carefully before applying 🕵️‍♀️ 😢
Migrate FusionDirectory from 1.0.8.4 to 1.0.8.5

Remove the deprecated plugins

The dashboard plugin has been integrated to the core so it must be removed.

```
apt-get --purge remove fusiondirectory-plugin-dashboard
```

Upgrade FusionDirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

```
apt-get install fusiondirectory
```

Upgrade FusionDirectory schema package too.

```
apt-get install fusiondirectory-schema
```

Upgrade of LDAP directory

You have to update your LDAP schemas, first remove the dashboard configuration schema.

```
fusiondirectory-insert-schema -e dashboard-fd-conf
Are you sure you want to empty schema(s) dashboard-fd-conf? [Yes/No]? Yes
```

Then update the core-fd-conf schema.

```
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/core-fd-conf.schema
```

If you are using the debconf plugin update his schema

```
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/debconf.schema
```

If you are using the fai plugin update his schema

```
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/fai.schema
```

If you are using the mail plugin update his schema

```
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/mail-fd.schema
```
Check for deprecated attributes and objectClasses in your LDAP

since FusionDirectory 1.0.8.1 two new options are in fusiondirectory-setup

```
fusiondirectory-setup --list-deprecated
List deprecated attributes and objectclasses
Deprecation attributes:
gosaUnitTag                    (Takes a list of relevant mime-type|priority settings)          - 1.3.6.1.4.1.10098.1.1.12.33
  gosaSnapshotType               (Takes either undo or snapshot) - 1.3.6.1.4.1.10098.1.1.12.36
  fdHonourUnitTags               (FusionDirectory - Honour unit tags) - 1.3.6.1.4.1.38414.8.14.3
Deprecation objectclasses:
gosaAdministrativeUnitTag      (Marker for objects below administrative units (v2.6.1)) - 1.3.6.1.4.1.10098.1.2.1.19.16
  gosaAdministrativeUnit        (Marker for administrational units (v2.6.1)) - 1.3.6.1.4.1.10098.1.2.1.19.15
```

```
fusiondirectory-setup --list-deprecated
show deprecated attributes and objectClasses for FusionDirectory
```

```
fusiondirectory-setup --check-deprecated
List LDAP entries using deprecated attributes or objectclasses
There are no entries in the LDAP using obsolete attributes
There are no entries in the LDAP using obsolete classes
```

```
fusiondirectory-setup --check-deprecated
will output a list of dns using old attributes and objectClasses
fusiondirectory-setup --ldif-deprecated
will output an ldif file on the console that you can use with ldapmodify to clean you ldap server from old attributes and objectClasses
```

Please read it carefully before applying 😊😊

From:
https://documentation.fusiondirectory.org/ - FusionDirectory Documentation

Permanent link:
https://documentation.fusiondirectory.org/en/documentation/admin_installation_migration_1.0.8.5

Last update: 2015/10/07 09:48
Migrate FusionDirectory from 1.0.8.5 to 1.0.8.6

Removal of the mixed posixAccount / groupOfNames aka rfc2307bis

⚠️ This was done to be more respectful of standard and not change the core openldap schema, but it seems to be causing trouble on some install, so if you use it don't upgrade to 1.0.8.6 and wait for 1.0.8.7 ⚠️

Upgrade FusionDirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

```
apt-get install fusiondirectory
```

Upgrade FusionDirectory schema package too.

```
apt-get install fusiondirectory-schema
```
Migrate FusionDirectory from 1.0.8.6 to 1.0.8.7

Upgrade FusionDirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

```
apt-get install fusiondirectory
```

Upgrade FusionDirectory schema package too.

```
apt-get install fusiondirectory-schema
```

Upgrade of LDAP directory

You have to update your LDAP schemas, first remove the dashboard configuration schema.

```
fusiondirectory-insert-schema -e dashboard-fd-conf
Are you sure you want to empty schema(s) dashboard-fd-conf? [Yes/No]? Yes
```

Then update the core-fd-conf schema.

```
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/core-fd-conf.schema
```

Check for deprecated attributes and objectClasses in your LDAP

since FusionDirectory 1.0.8.1 two new options are in fusiondirectory-setup

```
fusiondirectory-setup --list-deprecated
List deprecated attributes and objectclasses
Deprecated attributes:
gosaUnitTag                    (Takes a list of relevant mime-type|priority settings)   - 1.3.6.1.4.1.10098.1.1.12.33
 gosaSnapshotType               (Takes either undo or snapshot)                        - 1.3.6.1.4.1.10098.1.1.12.36
 fdHonourUnitTags               (FusionDirectory - Honour unit tags)                  - 1.3.6.1.4.1.38414.8.14.3
Deprecated objectClasses:
gosaAdministrativeUnitTag      (Marker for objects below administrative units (v2.6.1)) - 1.3.6.1.4.1.10098.1.2.1.19.16
 gosaAdministrativeUnit         (Marker for administrative units (v2.6.1))           - 1.3.6.1.4.1.10098.1.2.1.19.15
```
fusiondirectory-setup -list-deprecated show deprecated attributes and objectClasses for FusionDirectory

fusiondirectory-setup --check-deprecated
List LDAP entries using deprecated attributes or objectclasses
There are no entries in the LDAP using obsolete attributes
There are no entries in the LDAP using obsolete classes

fusiondirectory-setup -check-deprecated will output a list of dns using old attributes and objectClasses
fusiondirectory-setup -ldif-deprecated will output an ldif file on the console that you can use with ldapmodify to clean you ldap server from old attributes and objectClasses

Please read it carefully before applying 😊😊

From: https://documentation.fusiondirectory.org/ - FusionDirectory Documentation
Permanent link: https://documentation.fusiondirectory.org/en/documentation/admin_installation_migration_1.0.8.7
Last update: 2015/10/07 09:46
Migrate FusionDirectory from 1.0.8.7 to 1.0.8.8

Upgrade FusionDirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

```
apt-get install fusiondirectory
```

Upgrade FusionDirectory schema package too.

```
apt-get install fusiondirectory-schema
```

Upgrade of LDAP directory

Nothing to do

Check for deprecated attributes and objectClasses in your LDAP

since FusionDirectory 1.0.8.1 two new options are in fusiondirectory-setup

```
fusiondirectory-setup --list-deprecated
List deprecated attributes and objectclasses
Deprecation attributes:
gosaUnitTag - 1.3.6.1.4.1.10098.1.1.12.33
  (Takes a list of relevant mime-type|priority settings)
gosaSnapshotType - 1.3.6.1.4.1.10098.1.1.12.36
  (Takes either undo or snapshot)
fdHonourUnitTags - 1.3.6.1.4.1.38414.8.14.3
  (FusionDirectory - Honour unit tags)
```

```
fusiondirectory-setup --check-deprecated
List LDAP entries using deprecated attributes or objectclasses
There are no entries in the LDAP using obsolete attributes
There are no entries in the LDAP using obsolete classes
```
fusiondirectory-setup -check-deprecated will output a list of dns using old attributes and objectClasses

fusiondirectory-setup -ldif-deprecated will output an ldif file on the console that you can use with ldapmodify to clean you ldap server from old attributes and objectClasses

Please read it carefully before applying

From:
https://documentation.fusiondirectory.org/ - FusionDirectory Documentation

Permanent link:
https://documentation.fusiondirectory.org/en/documentation/admin_installation_migration_1.0.8.8

Last update: 2015/06/30 17:56
Migrate FusionDirectory from 1.0.8.8 to 1.0.8.9

Upgrade FusionDirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

```
apt-get install fusiondirectory
```

Upgrade FusionDirectory schema package too.

```
apt-get install fusiondirectory-schema
```

Upgrade of LDAP directory

Upgrade the argonaut.schema if you use the argonaut plugin

```
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/argonaut-fd.schema
```

Check for deprecated attributes and objectClasses in your LDAP

since FusionDirectory 1.0.8.1 two new options are in fusiondirectory-setup

```
fusiondirectory-setup --list-deprecated
List deprecated attributes and objectclasses
Deprecation attributes:
gosaUnitTag - 1.3.6.1.4.1.10098.1.1.12.33  (Takes a list of relevant mime-type|priority settings)
gosaSessionType - 1.3.6.1.4.1.10098.1.1.12.36  (Takes either undo or snapshot)
fdHonourUnitTags - 1.3.6.1.4.1.38414.8.14.3
Deprecation objectClasses:
gosaAdministrativeUnitTag - 1.3.6.1.4.1.10098.1.2.1.19.16  (Marker for objects below administrative units (v2.6.1))
gosaAdministrativeUnit - 1.3.6.1.4.1.10098.1.2.1.19.15
```

```
fusiondirectory-setup --list-deprecated
show deprecated attributes and objectClasses for FusionDirectory
```

```
fusiondirectory-setup --check-deprecated
List LDAP entries using deprecated attributes or objectclasses
```


Printed on 2016/08/31 08:53
There are no entries in the LDAP using obsolete attributes
There are no entries in the LDAP using obsolete classes

**fusiondirectory-setup -check-deprecated** will output a list of dns using old attributes and objectClasses
**fusiondirectory-setup -ldif-deprecated** will output an ldif file on the console that you can use with ldapmodify to clean you ldap server from old attributes and objectClasses

Please read it carefully before applying 😊😊
Migrate FusionDirectory from 1.0.8.9 to 1.0.9

Backup you template First

The template system has been completely rewritten, and the old template will not be converted, so you need to backup them, remove them from FusionDirectory and then redo them.

The new system is much cleaner because template are stored in they own branch now and are the basis for having template for the whole application in the future.

Backup your phones

You must backup all your phones in a LDIF and remove them. Modify your LDIF like below:

```plaintext
Before
 cn=namePhone,ou=phones,ou=systems,dc=labo,dc=opensides,dc=be  
 cn: namePhone  
 goFonType: friend  
 goFonDmtfMode: inband  
 goFonDefaultIP: dynamic  
 ipHostNumber: 127.0.0.1  
 macAddress: 00:0C:7F:31:33:F1  
 objectClass: top

After
 cn=namePhone,ou=phones,ou=systems  
 cn: namePhone  
 ipHostNumber: 127.0.0.1  
 macAddress: 00:0C:7F:31:33:F1  
 objectClass: fdPhone  
 objectClass: device  
 objectClass: ieee802Device  
 objectClass: ipHost
```

After the migration you may insert your phone again in your LDAP.

You can use the next command to backup your phones

```
ldapsearch -xLLL -b ou=phones,ou=systems,dc=labo,dc=opensides,dc=be > backupPhones.ldif
```

Moved Attributes

We cleaned the core of FusionDirectory to only used classical attributes and objectClass, so the FusionDirectory special attributes on the first page of FusionDirectory are now managed by the personal plugin.
The personal plugin has been made to manage all kind of personal data and is best suited to contain those data not normalized. So of you use **personalTitle**, **dateOfBirth**, **gender** you will need to install the personal plugin.

**Upgrade FusionDirectory**

**Upgrade FusionDirectory core package before other ones to avoid dependencies errors**

**Debian**

```
apt-get install fusiondirectory
```

Upgrade FusionDirectory schema package too.

```
apt-get install fusiondirectory-schema
```

There is a new schema for the templates, so you need to run

```
fusiondirectory-insert-schema
```

**RPM**

```
yum remove fusiondirectory
yum install fusiondirectory
```

Upgrade FusionDirectory schema package too.

```
yum remove fusiondirectory-schema
yum install fusiondirectory-schema
```

There is a new schema for the templates, so you need to run

```
fusiondirectory-insert-schema
```

**Removed obsolete plugins**

In this version we removed obsolete plugin, because they where based on software no longer existing or needed an sql backend and we decided they need to be rewritten using the now ldap backend of those softwares :

- **asterisk**: old plugin not maintainable anymore based on the sql backend, but now asterisk has an ldap backend has well.
- **fax**: old code based on the gofax software from gonicus, not maintained anymore upstream.
**openstack-compute**: openstack management interface changed and this plugin is no longer relevant

**uw-imap**: long gone imap server, nobody that we know still use it

They are no longer supported and should be removed from your installation

```bash
apt-get remove fusiondirectory-plugin-asterisk
apt-get remove fusiondirectory-plugin-fax
apt-get remove fusiondirectory-plugin-openstack-compute
apt-get remove fusiondirectory-plugin-uwimap
```

**New Plugin for peoples using a mix of groupOfNames and posixGroup on the same object**

We cleaned the code of FusionDirectory and by default it make posixGroup or clean standard compliant groupOfNames. If you need a mix of groupOfNames and posixGroup on the same object you will need to install a new plugin called mixedgroups.

⚠️ Please take note that this plugin is for special cases and need modified core schema. ⚠️

If you need to have a link between user and groups you are better using the standard compliant groupOfNames or roles for examples for web applications.

```bash
apt-get install fusiondirectory-plugin-mixedgroups
```

**Upgrade of LDAP directory**

**Upgrade Core FusionDirectory Schema**

The password recovery schema has been migrated into the core schema so you must remove it first

```bash
fusiondirectory-insert-schema -e recovery-fd
Are you sure you want to empty schema(s) recovery-fd? [Yes/No]?
```

Upgrade the core-fd.schema and core-fd-conf.schema

```bash
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/core-fd.schema
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/core-fd-conf.schema
```

If you use the argonaut plugin, upgrade the argonaut.schema
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/argonaut-fd.schema

If you use the fai plugin, upgrade the fai-fd-conf.schema

fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/fai-fd-conf.schema

If you use the mail plugin, upgrade the mail-fd.schema

fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/mail-fd.schema

If you use the personal plugin, upgrade the personal-fd.schema

fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/personal-fd.schema

If you use the squid plugin, upgrade the proxy-fd.schema

fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/proxy-fd.schema

If you use the system plugin, upgrade the service-fd.schema, systems-fd.schema, systems-fd-conf.schema

The Phone object has been migrated to the system plugin due to the removal of the asterisk plugin.

fusiondirectory-insert-schema -e asterisk-fd-conf
Are you sure you want to empty schema(s) asterisk-fd-conf? [Yes/No]?

fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/service-fd.schema

fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/systems-fd-conf.schema

fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/systems-fd.schema

Check for deprecated attributes and objectClasses in your LDAP

fusiondirectory-setup --list-deprecated show deprecated attributes and objectClasses for FusionDirectory

fusiondirectory-setup --list-deprecated
List deprecated attributes and objectclasses
Deprecated attributes:
gotoModules (GOto - Gonicus Terminal Concept, value
kernel modules.) - 1.3.6.1.4.1.10098.1.1.1.32
fdPasswordHook (FusionDirectory - Password hook (external command)) - 1.3.6.1.4.1.38414.8.13.4
fdSnapshotURI (FusionDirectory - Snapshot URI)
 gotoXVsync (G0to - Gonicus Terminal Concept, value xVsync.) - 1.3.6.1.4.1.10098.1.1.1.19
 ghSoundAdapter (Hardware definitions, value soundAdapter)
 gotoScannerClients (G0to - Gonicus Terminal Concept, value scannerClients.) - 1.3.6.1.4.1.10098.1.1.1.11
 gotoHardwareChecksum (G0to - quick way to see if something has changed) - 1.3.6.1.4.1.10098.1.1.1.12.12
gotoRootPasswd (G0to - Gonicus Terminal Concept, value rootPasswd.) - 1.3.6.1.4.1.10098.1.1.1.14
gotoXKbLayout (G0to - Gonicus Terminal Concept, value xKbLayout.) - 1.3.6.1.4.1.10098.1.1.1.26
 gotoProfileServer (G0to - specifies the profile server) - 1.3.6.1.4.1.10098.1.1.11.8
 fdAccountRDN (FusionDirectory - use a placeholder pattern for generating account RDNs) - 1.3.6.1.4.1.38414.8.12.2
gotoScannerEnable (G0to - Gonicus Terminal Concept, value scannerEnable.) - 1.3.6.1.4.1.10098.1.1.1.10
 ghGfxAdapter (Hardware definitions, value Grafikkarte)
 gotoFontPath (G0to - Gonicus Terminal Concept, value fontPath.) - 1.3.6.1.4.1.10098.1.1.1.15
 ghIdeDev (Hardware definitions, value ideDev)
 gotoLpdEnable (G0to - Gonicus Terminal Concept, value lpdEnable.) - 1.3.6.1.4.1.10098.1.1.1.9
 gotoXKbVariant (G0to - Gonicus Terminal Concept, value xKbVariant.) - 1.3.6.1.4.1.10098.1.1.1.27
 fdRfc2307bis (FusionDirectory - rfc2307bis)
 gotoAutoFs (G0to - Gonicus Terminal Concept, value autos.) - 1.3.6.1.4.1.10098.1.1.1.31
 gotoSndModule (G0to - Gonicus Terminal Concept, value sound Modules.) - 1.3.6.1.4.1.10098.1.1.1.29
 gotoCdromEnable (G0to - Gonicus Terminal Concept, value cdromEnable.) - 1.3.6.1.4.1.10098.1.1.1.8
 gotoScannerModel (G0to - Gonicus Terminal Concept, value scannerModel.) - 1.3.6.1.4.1.10098.1.1.1.40
 gosaLoginRestriction (G0sa - Multivalue attribute to carry a number of allowed ips/subnets) - 1.3.6.1.4.1.10098.1.1.12.46
gotoXColordepth                (GOto - Gonicus Terminal Concept, value xColordepth.) - 1.3.6.1.4.1.10098.1.1.1.21
academicTitle                  (Field to represent the academic title) - 1.3.6.1.4.1.10098.1.1.6.2
fdSnapshotAdminDn              (FusionDirectory - Snaphost admin dn) - 1.3.6.1.4.1.38414.8.17.4
gotoFilesystem                 (GOto - Gonicus Terminal Concept, value filesystem.) - 1.3.6.1.4.1.10098.1.1.1.6
ghInventoryNumber              (Unique number for inclusion in an inventory) - 1.3.6.1.4.1.10098.1.1.2.10
gosaSubtreeACL                 (GOsa - ACL entry) - 1.3.6.1.4.1.10098.1.1.12.1
fdIdGenerator                  (FusionDirectory - An automatic way to generate new user ids) - 1.3.6.1.4.1.38414.8.12.4
ghUsbSupport                   (Hardware definitions, value usbSupport) - 1.3.6.1.4.1.10098.1.1.2.3
gotoSysStatus                  (Keeps current system status - info shown in G0sas) - 1.3.6.1.4.1.10098.1.1.2.11
fdCopyPaste                    (FusionDirectory - (de)Activate copy/paste) - 1.3.6.1.4.1.38414.8.14.5
gotoXDriver                    (GOto - Gonicus Terminal Concept, value xDriver.) - 1.3.6.1.4.1.10098.1.1.1.28
gotoXKbModel                   (GOto - Gonicus Terminal Concept, value xKbmodel.) - 1.3.6.1.4.1.10098.1.1.1.25
fdPersonalTitleInDN            (FusionDirectory - Personal title in dn) - 1.3.6.1.4.1.38414.8.12.5
gotoLpdServer                  (GOto - Gonicus Terminal Concept, value lpdServer.) - 1.3.6.1.4.1.10098.1.1.1.4
gotoXHsync                     (GOto - Gonicus Terminal Concept, value xHsync.) - 1.3.6.1.4.1.10098.1.1.1.18
gotoProfileFlags               (GOto - Flags for Profile handling - C is for caching) - 1.3.6.1.4.1.10098.1.1.1.11.7
ghCpuType                      (Hardware definitions, value cpuType) - 1.3.6.1.4.1.10098.1.1.1.2.1
gotoXResolution                (GOto - Gonicus Terminal Concept, value xResolution.) - 1.3.6.1.4.1.10098.1.1.1.20
gotoShare                      (GOto - specifies a share) - 1.3.6.1.4.1.10098.1.1.1.11.9
gotoScannerBackend             (GOto - Gonicus Terminal Concept, value scannerBackend.) - 1.3.6.1.4.1.10098.1.1.1.39
fdSnapshotAdminPassword        (FusionDirectory - Snaphost admin password) - 1.3.6.1.4.1.38414.8.17.5
fdVoicemailContexts            (FusionDirectory - available voicemail contexts) - 1.3.6.1.4.1.38414.19.11.2
gosaDefaultLanguage            (GOsa - Defines the default language for a user) - 1.3.6.1.4.1.10098.1.1.12.14
ghMemSize                      (Hardware definitions, value memSize) - 1.3.6.1.4.1.10098.1.1.1.12.2
gotoProfileQuota               (GOto - save quota for home) - 1.3.6.1.4.1.10098.1.1.11.15
fdSipContexts                  (FusionDirectory - available sip contexts)
- 1.3.6.1.4.1.38414.19.11.1
  fdPhoneConferenceRDN (FusionDirectory - Phone conference RDN)
- 1.3.6.1.4.1.38414.19.10.3
  ghScsiDev (Hardware definitions, value scsiDev)
- 1.3.6.1.4.1.10098.1.1.2.5
  fdPhoneMacroRDN (FusionDirectory - Phone macro RDN)
- 1.3.6.1.4.1.38414.19.10.2
  ghNetNic (Hardware definitions, value Network Device)
- 1.3.6.1.4.1.10098.1.1.2.8
gotoFloppyEnable (GOto - Gonicus Terminal Concept, value floppyEnable.)
gotoXMouseButtons (GOto - Gonicus Terminal Concept, value xMouseButtons.)
gotoXMouseType (Hardware definitions, value Type of mouse).

Deprecated objectClasses:
- 1.3.6.1.4.1.10098.1.2.1.23
goCupsServer (CUPS server description)
- 1.3.6.1.4.1.10098.1.2.1.19.3
goCacheEntry (GOsa - Class for GOsa caching)
- 1.3.6.1.4.1.10098.1.2.1.19.11
goUserTemplate (GOsa - Class for GOsa User Templates)
- 1.3.6.1.4.1.10098.1.2.1.19.6
goAccount (GOsa - Class for GOsa Accounts)
- 1.3.6.1.4.1.10098.1.2.1.19.1
goObject (GOsa - Class for GOsa settings)

**fusiondirectory-setup -check-deprecated** will output a list of dn using old attributes and objectClasses

**fusiondirectory-setup --check-deprecated**
List LDAP entries using deprecated attributes or objectclasses
  cn=fusiondirectory,ou=configs,dc=labo,dc=opensides,dc=be contains an obsolete attribute
  cn=fusiondirectory,ou=configs,dc=labo,dc=opensides,dc=be uses the obsolete object class fdAsteriskPluginConf
  uid=fd-admin,ou=people,dc=labo,dc=opensides,dc=be uses the obsolete object class gosaAccount

**fusiondirectory-setup -ldif-deprecated** will output an ldif file on the console that you can use with ldapmodify to clean you ldap server from old attributes. If they are old objectClasses it will warn you and you will have to remove it by hand, they have been specified at the **fusiondirectory-setup -check-deprecated** step.

**fusiondirectory-setup --ldif-deprecated**
  # Print an LDIF removing deprecated attributes
dn:cn=fusiondirectory,ou=configs,dc=labo,dc=opensides,dc=be
  changetype:modify
delete:fdRfc2307bis
- delete:fdCopyPaste
# WARNING: There are entries in the LDAP using obsolete classes, you need to edit them manually

Please read it carefully before applying 🚩 🚩

## Remove old schema from /etc/ldap/schema/fusiondirectory

The old schema are not automatically removed from /etc/ldap/schema/fusiondirectory. You can safely remove `recovery-fd.schema` and `asterisk-fd.conf`

## Problems when we removing objectClasses

When you remove gosaAccount you can have some troubles.

If you have samba plugin installed you must remove the next attributes on the users where the samba tab is not activate.

- sambaBadPasswordTime
- sambaBadPasswordCount
- sambaNTPassword
- sambaPwdLastSet

## If you use argonaut client tab on some objects

To add the new attribute argonautClientProtocol, you must only open the objects that have an argonaut client tab and save it again.
Migrate FusionDirectory from 1.0.9 to 1.0.9.1

Upgrade FusionDirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

```
apt-get install fusiondirectory
```

Upgrade FusionDirectory schema package too.

```
apt-get install fusiondirectory-schema
```

Upgrade of LDAP directory

Insert the core template schema

```
fusiondirectory-insert-schema -i /etc/ldap/schema/fusiondirectory/template-fd.schema
```

Remove old schema from /etc/ldap/schema/fusiondirectory

The old schema are not automatically removed from /etc/ldap/schema/fusiondirectory. You can safely remove `recovery-fd.schema`, `asterisk-fd.schema` and `asterisk-fd-conf.schema` because asterisk plugin does not exist anymore.

Check for deprecated attributes and objectClasses in your LDAP

```
fusiondirectory-setup --list-deprecated
```

List deprecated attributes and objectclasses

```
fusiondirectory-setup --list-deprecated
```

Deprecated attributes:

- `gotoModules` - 1.3.6.1.4.1.10098.1.1.1.32 (G0to - Gonicus Terminal Concept, value kernel modules.)
- `fdPasswordHook` - 1.3.6.1.4.1.38414.8.13.4 (FusionDirectory - Password hook (external command))
- `fdSnapshotURI` - 1.3.6.1.4.1.38414.8.17.3 (FusionDirectory - Snaphost URI)
- `gotoXVsync` - 1.3.6.1.4.1.10098.1.1.1.19 (G0to - Gonicus Terminal Concept, value xVsync.)
- `ghSoundAdapter` - 1.3.6.1.4.1.10098.1.1.2.7 (Hardware definitions, value soundAdapter)
- `gotoXMouseport` - 1.3.6.1.4.1.10098.1.1.2.7 (G0to - Gonicus Terminal Concept, value xMouseport)
xMouseport.) - 1.3.6.1.4.1.10098.1.1.1.22

gotoXMonitor (G0to - Gonicus Terminal Concept, value xMonitor.) - 1.3.6.1.4.1.10098.1.1.1.17

gotoAdaptPath (G0to - Gonicus Terminal Concept, value adaptPath.) - 1.3.6.1.4.1.10098.1.1.1.33

gotoScannerClients (G0to - Gonicus Terminal Concept, value scannerClients.) - 1.3.6.1.4.1.10098.1.1.1.11

gotoHardwareChecksum (G0to - quick way to see if something has changed) - 1.3.6.1.4.1.10098.1.1.2.12

gotoRootPasswd (G0to - Gonicus Terminal Concept, value rootPasswd.) - 1.3.6.1.4.1.10098.1.1.1.14

gotoXKbLayout (G0to - Gonicus Terminal Concept, value xKbLayout.) - 1.3.6.1.4.1.10098.1.1.1.26

gotoProfileServer (G0to - specifies the profile server) - 1.3.6.1.4.1.10098.1.1.11.8

fdAccountRDN (FusionDirectory - use a placeholder pattern for generating account RDNs) - 1.3.6.1.4.1.38414.8.12.2

scanserEnable (G0to - Gonicus Terminal Concept, value scannerEnable.) - 1.3.6.1.4.1.10098.1.1.1.10

gfxAdapter (Hardware definitions, value Grafikkarte) - 1.3.6.1.4.1.10098.1.1.2.9

fontPath (G0to - Gonicus Terminal Concept, value fontPath.) - 1.3.6.1.4.1.10098.1.1.1.5

ghideDev (Hardware definitions, value ideDev) - 1.3.6.1.4.1.10098.1.1.2.4

lpdEnable (G0to - Gonicus Terminal Concept, value lpdEnable.) - 1.3.6.1.4.1.10098.1.1.1.9

xKbVariant (G0to - Gonicus Terminal Concept, value xKbVariant.) - 1.3.6.1.4.1.10098.1.1.1.27

fdRfc2307bis (FusionDirectory - rfc2307bis) - 1.3.6.1.4.1.38414.8.10.1

gotoAutoFs (G0to - Gonicus Terminal Concept, value autofs.) - 1.3.6.1.4.1.10098.1.1.1.31

gotoSndModule (G0to - Gonicus Terminal Concept, value sound Modules.) - 1.3.6.1.4.1.10098.1.1.1.29

gotocdromEnable (G0to - Gonicus Terminal Concept, value cdromEnable.) - 1.3.6.1.4.1.10098.1.1.1.8

scannerModel (G0to - Gonicus Terminal Concept, value scannerModel.) - 1.3.6.1.4.1.10098.1.1.1.40

gosaLoginRestriction (G0sa - Multivalue attribute to carry a number of allowed ips/subnets) - 1.3.6.1.4.1.10098.1.1.12.46

gotoColordepth (G0to - Gonicus Terminal Concept, value xColorDepth.) - 1.3.6.1.4.1.10098.1.1.1.21

academicTitle (Field to represent the academic title) - 1.3.6.1.4.1.10098.1.1.6.2

fdSnapshotAdminDn (FusionDirectory - Snapshot admin dn) - 1.3.6.1.4.1.38414.8.17.4

gotoFilesystem (G0to - Gonicus Terminal Concept, value filesystem.) - 1.3.6.1.4.1.10098.1.1.1.6

ghInventoryNumber (Unique number for inclusion in an inventory) - 1.3.6.1.4.1.10098.1.1.2.10
gosSubtreeACL
- 1.3.6.1.4.1.10098.1.1.12.1

fdIdGenerator
- 1.3.6.1.4.1.38414.8.12.4

ghUsbSupport
- 1.3.6.1.4.1.10098.1.1.2.3

gotoSysStatus
- 1.3.6.1.4.1.10098.1.1.2.11

fdCopyPaste
- 1.3.6.1.4.1.38414.8.14.5
gotoXDriver
- 1.3.6.1.4.1.10098.1.1.1.28
gotoXKbModel
- 1.3.6.1.4.1.10098.1.1.1.25

fdPersonalTitleInDN
- 1.3.6.1.4.1.38414.8.12.5
gotoLpdServer
- 1.3.6.1.4.1.10098.1.1.1.14
gotoXHsync
- 1.3.6.1.4.1.10098.1.1.1.18
gotoProfileFlags
- 1.3.6.1.4.1.10098.1.1.11.7

ghCpuType
- 1.3.6.1.4.1.10098.1.1.2.1
gotoXRresolution
- 1.3.6.1.4.1.10098.1.1.1.20
gotoShare
- 1.3.6.1.4.1.10098.1.1.1.11.9
gotoScannerBackend
- 1.3.6.1.4.1.10098.1.1.11.2.1

fdSnapshotAdminPassword
- 1.3.6.1.4.1.38414.8.17.5

fdVoicemailContexts
- 1.3.6.1.4.1.38414.19.11.2
gosaDefaultLanguage
- 1.3.6.1.4.1.10098.1.1.12.14

ghMemSize
- 1.3.6.1.4.1.10098.1.1.12.2
gotoProfileQuota
- 1.3.6.1.4.1.10098.1.1.11.15

fdSipContexts
- 1.3.6.1.4.1.38414.19.11.1
dPhoneConferenceRDN
- 1.3.6.1.4.1.38414.19.10.3

ghScsiDev
- 1.3.6.1.4.1.10098.1.1.2.5
dPhoneMacroRDN
- 1.3.6.1.4.1.38414.19.10.2

ghNetNic
- 1.3.6.1.4.1.38414.19.10.2
gotoFloppyEnable
- 1.3.6.1.4.1.10098.1.1.12.8

(GOsa - ACL entry)
(FusionDirectory - An automatic way to generate new user ids)
(Hardware definitions, value usbSupport)
(Keeps current system status - info shown in GOsa)
(FusionDirectory - (de)Activate copy/paste)
(GOto - Gonicus Terminal Concept, value xDriver.)
(GOto - Gonicus Terminal Concept, value xKbmodel.)
(FusionDirectory - Personal title in dn)
(GOto - Gonicus Terminal Concept, value lpdServer.)
(GOto - Gonicus Terminal Concept, value xHsync.)
(GOto - Flags for Profile handling - C is for caching)
(Hardware definitions, value cpuType)
(GOto - Gonicus Terminal Concept, value xResolution.)
(GOto - specifies a share)
(GOto - Gonicus Terminal Concept, value scannerBackend.)
(FusionDirectory - Snaphost admin password)
(FusionDirectory - available voicemail contexts)
(GOsa - Defines the default language for a user)
(Hardware definitions, value memSize)
(GOto - save quota for home)
(FusionDirectory - available sip contexts)
(FusionDirectory - Phone conference RDN)
(Hardware definitions, value scsiDev)
(FusionDirectory - Phone macro RDN)
(Hardware definitions, value Network Device)
(GOto - Gonicus Terminal Concept, value
floppyEnable.) - 1.3.6.1.4.1.10098.1.1.1.7
gotoXMouseButtons - (GOto - Gonicus Terminal Concept, value xMouseButtons.) - 1.3.6.1.4.1.10098.1.1.1.23
gotoXMouseType - 1.3.6.1.4.1.10098.1.1.1.34
   Deprecated objectClasses:
goCupsServer - (CUPS server description)
- 1.3.6.1.4.1.10098.1.2.1.23
gosaCacheEntry - (GOsa - Class for GOsa caching)
- 1.3.6.1.4.1.10098.1.2.1.19.3
gosaUserTemplate - (GOsa - Class for GOsa User Templates)
- 1.3.6.1.4.1.10098.1.2.1.19.11
gosaAccount - (GOsa - Class for GOsa Accounts)
- 1.3.6.1.4.1.10098.1.2.1.19.6
gosaObject - (GOsa - Class for GOsa settings)
- 1.3.6.1.4.1.10098.1.2.1.19.1

fusiondirectory-setup –check-deprecated will output a list of dn using old attributes and objectClasses

fusiondirectory-setup --check-deprecated
List LDAP entries using deprecated attributes or objectclasses
cn=fusiondirectory,ou=configs,dc=fusiondirectory,dc=org contains an obsolete attribute
uid=fd-admin,ou=people,dc=fusiondirectory,dc=org uses the obsolete object class gosaAccount

fusiondirectory-setup -migrate-users can help you migrate you user to the new core classes that are used by FusionDirectory. If they are attributes moved over to the personal plugin, it will automatically migrate them and you just need to install the personal plugin

fusiondirectory-setup -ldif-deprecated will output an ldif file on the console that you can use with ldapmodify to clean you ldap server from old attributes.

If they are old objectClasses it will warn you and you will have to remove it by hand, they have been specified at the fusiondirectory-setup -check-deprecated step at the exception of the gosaAccount class that is migrated with fusiondirectory-setup -migrate-users like mentioned above.

Please read it carefully before applying 11
Migrate FusionDirectory from 1.0.9.1 to 1.0.9.2

Ubuntu 12.0.4 TLS users

⚠️ Since 1.0.9.2 FusionDirectory need the php-cas library for CAS server support. This library can normally found in universe in the Ubuntu repositories.

In case you did not find it, grab the deb from here and install it

http://packages.ubuntu.com/trusty/all/php-cas/download

and select your preferred mirror

Upgrade FusionDirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

```
apt-get install fusiondirectory
```

Upgrade FusionDirectory schema package too.

```
apt-get install fusiondirectory-schema
```

Removed obsolete plugins

In this version we removed obsolete plugin, because they where based on software no longer existing or needed an sql backend and we decided they need to be rewritten using the now ldap backend of those softwares :

- **rsyslog** : old plugin not maintainable anymore based on the sql backend, and we don't want to manage sql backend in FusionDirectory anymore

- **database-connector** : sql abstraction code no longer needed now that rsyslog plugin is removed

They are no longer supported and should be removed from your installation

```
apt-get remove fusiondirectory-plugin-rsyslog
```

```
apt-get remove fusiondirectory-plugin-database-connector
```

Upgrade of LDAP directory

Upgrade the core template schema
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/core-fd.schema

fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/core-fd-conf.schema

if your are using the fusioninventory plugin you have to update his schema

fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/inventory-fd.schema

if your are using the supann plugin you have to update his schema

fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/supann-fd.conf

Remove old schema from /etc/ldap/schema/fusiondirectory

The old schema are not automatically removed from /etc/ldap/schema/fusiondirectory. You can safely remove recovery-fd.schema and asterisk-fd.conf if they still exist

Check for deprecated attributes and objectClasses in your LDAP

fusiondirectory-setup --list-deprecated show deprecated attributes and objectClasses for FusionDirectory

fusiondirectory-setup --list-deprecated
List deprecated attributes and objectclasses

Deprecated attributes:

gotoModules                    (GOto - Gonicus Terminal Concept, value kernel modules.)        - 1.3.6.1.4.1.10098.1.1.1.32
fdPasswordHook                (FusionDirectory - Password hook (external command)) ) - 1.3.6.1.4.1.38414.8.13.4
fdSnapshotURI                 (FusionDirectory - Snaphost URI) - 1.3.6.1.4.1.38414.8.17.3
-gotoXVsync                    (GOto - Gonicus Terminal Concept, value xVsync.)             - 1.3.6.1.4.1.10098.1.1.1.19
ghSoundAdapter                (Hardware definitions, value soundAdapter) - 1.3.6.1.4.1.10098.1.1.2.7
-gotoXMouseport                (GOto - Gonicus Terminal Concept, value xMouseport.)            - 1.3.6.1.4.1.10098.1.1.1.22
-gotoXMonitor                  (GOto - Gonicus Terminal Concept, value xMonitor.)             - 1.3.6.1.4.1.10098.1.1.1.17
-gotoAdaptPath                 (GOto - Gonicus Terminal Concept, value adaptpath.)          - 1.3.6.1.4.1.10098.1.1.1.17
-gotoScannerClients            (GOto - Gonicus Terminal Concept, value scannerClients.) - 1.3.6.1.4.1.10098.1.1.1.11
-gotoHardwareChecksum          (GOto - quick way to see if something has
changed) - 1.3.6.1.4.1.10098.1.1.2.12
gotoRootPasswd (GOno - Gonicus Terminal Concept, value rootPasswd.) - 1.3.6.1.4.1.10098.1.1.1.14
gotoXKbLayout (GOno - Gonicus Terminal Concept, value xKbLayout.) - 1.3.6.1.4.1.10098.1.1.1.26
gotoProfileServer (GOno - specifies the profile server)
- 1.3.6.1.4.1.10098.1.1.11.8
fdAccountRDN (FusionDirectory - use a placeholder pattern for generating account RDNs) - 1.3.6.1.4.1.38414.8.12.2
gotoScannerEnable (GOno - Gonicus Terminal Concept, value scannerEnable.) - 1.3.6.1.4.1.10098.1.1.1.10
ghGfxAdapter (Hardware definitions, value Grafikkarte)
- 1.3.6.1.4.1.10098.1.1.2.9
gotoFontPath (GOno - Gonicus Terminal Concept, value fontPath.) - 1.3.6.1.4.1.10098.1.1.1.5
ghIdeDev (Hardware definitions, value ideDev)
- 1.3.6.1.4.1.10098.1.1.2.4
gotoLpdEnable (GOno - Gonicus Terminal Concept, value lpdEnable.) - 1.3.6.1.4.1.10098.1.1.1.9
gotoXKbVariant (GOno - Gonicus Terminal Concept, value xKbVariant.) - 1.3.6.1.4.1.10098.1.1.1.27
fdRfc2307bis (FusionDirectory - rfc2307bis)
- 1.3.6.1.4.1.10098.1.1.12.4
gotoAutoFs (GOno - Gonicus Terminal Concept, value autofs.) - 1.3.6.1.4.1.10098.1.1.1.31
gotoSndModule (GOno - Gonicus Terminal Concept, value sound Modules.) - 1.3.6.1.4.1.10098.1.1.1.29
gotoCdromEnable (GOno - Gonicus Terminal Concept, value cdromEnable.) - 1.3.6.1.4.1.10098.1.1.1.8
gotoScannerModel (GOno - Gonicus Terminal Concept, value scannerModel.) - 1.3.6.1.4.1.10098.1.1.1.40
gosaLoginRestriction (GOsa - Multivalue attribute to carry a number of allowed ips/subnets) - 1.3.6.1.4.1.10098.1.1.12.46
gotoXColordepth (GOno - Gonicus Terminal Concept, value xColordepth.) - 1.3.6.1.4.1.10098.1.1.1.21
academicTitle (Field to represent the academic title)
- 1.3.6.1.4.1.10098.1.1.6.2
fdSnapshotAdminDn (FusionDirectory - Snaphost admin dn)
- 1.3.6.1.4.1.38414.8.17.4
gotoFileSystem (GOno - Gonicus Terminal Concept, value filesystem.) - 1.3.6.1.4.1.10098.1.1.1.6
ghiInventoryNumber (Unique number for inclusion in an inventory) - 1.3.6.1.4.1.10098.1.1.1.10
gosaSubtreeACL (GOsa - ACL entry)
- 1.3.6.1.4.1.10098.1.1.12.1
fdIdGenerator (FusionDirectory - An automatic way to generate new user ids) - 1.3.6.1.4.1.38414.8.12.4
ghUsbSupport (Hardware definitions, value usbSupport)
- 1.3.6.1.4.1.10098.1.1.2.3
gotoSysStatus (Keeps current system status - info shown in GOsa)
- 1.3.6.1.4.1.10098.1.1.2.11
fdCopyPaste (FusionDirectory - (de)Activate copy/paste)
  - 1.3.6.1.4.1.38414.8.14.5
gotoXDriver (G0to - Gonicus Terminal Concept, value xDriver.)
  - 1.3.6.1.4.1.10098.1.1.1.28
goToXKbModel (G0to - Gonicus Terminal Concept, value xKbmodel.)
  - 1.3.6.1.4.1.10098.1.1.1.25
fdPersonalTitleInDN (FusionDirectory - Personal title in dn)
  - 1.3.6.1.4.1.38414.8.12.5
gotoLpdServer (G0to - Gonicus Terminal Concept, value lpdServer.)
  - 1.3.6.1.4.1.10098.1.1.1.4
goToXHsync (G0to - Gonicus Terminal Concept, value xHsync.)
  - 1.3.6.1.4.1.10098.1.1.1.18
gotoProfileFlags (G0to - Flags for Profile handling - C is for caching)
  - 1.3.6.1.4.1.10098.1.1.11.7
ghCpuType (Hardware definitions, value cpuType)
  - 1.3.6.1.4.1.10098.1.1.2.1
goToXResolution (G0to - Gonicus Terminal Concept, value xResolution.)
  - 1.3.6.1.4.1.10098.1.1.1.20
goToShare (G0to - specifies a share)
  - 1.3.6.1.4.1.10098.1.1.11.9
goToScannerBackend (G0to - Gonicus Terminal Concept, value scannerBackend.)
  - 1.3.6.1.4.1.10098.1.1.1.39
fdSnapshotAdminPassword (FusionDirectory - Snaphost admin password)
  - 1.3.6.1.4.1.38414.8.17.5
fdVoicemailContexts (FusionDirectory - available voicemail contexts)
  - 1.3.6.1.4.1.38414.19.11.2
gosaDefaultLanguage (GOsa - Defines the default language for a user)
  - 1.3.6.1.4.1.10098.1.1.12.14
ghMemSize (Hardware definitions, value memSize)
  - 1.3.6.1.4.1.10098.1.1.2.2
goToProfileQuota (G0to - save quota for home)
  - 1.3.6.1.4.1.10098.1.1.11.15
fdSipContexts (FusionDirectory - available sip contexts)
  - 1.3.6.1.4.1.38414.19.11.1
fdPhoneConferenceRDN (FusionDirectory - Phone conference RDN)
  - 1.3.6.1.4.1.38414.19.10.3
ghScsiDev (Hardware definitions, value scsiDev)
  - 1.3.6.1.4.1.10098.1.1.12.5
fdPhoneMacroRDN (FusionDirectory - Phone macro RDN)
  - 1.3.6.1.4.1.38414.19.10.2
ghNetNic (Hardware definitions, value Network Device)
  - 1.3.6.1.4.1.10098.1.1.2.8
goToFloppyEnable (G0to - Gonicus Terminal Concept, value floppyEnable.)
  - 1.3.6.1.4.1.10098.1.1.1.7
goToXMouseButtons (G0to - Gonicus Terminal Concept, value xMouseButtons.)
  - 1.3.6.1.4.1.10098.1.1.1.23
goToXMouseType (Hardware definitions, value Type of mouse)
  - 1.3.6.1.4.1.10098.1.1.1.34

Deprecated objectClasses:
goCupsServer (CUPS server description)
  - 1.3.6.1.4.1.10098.1.2.1.23

FusionDirectory Documentation - https://documentation.fusiondirectory.org/
fusiondirectory-setup -check-deprecated will output a list of dn using old attributes and objectClasses of they are present in your ldap server

fusiondirectory-setup --check-deprecated
List LDAP entries using deprecated attributes or objectclasses
There are no entries in the LDAP using obsolete attributes
There are no entries in the LDAP using obsolete classes

fusiondirectory-setup -migrate-users can help you migrate you user to the new core classes that are used by FusionDirectory. If they are attributes moved over to the personal plugin, it will automatically migrate them and you just need to install the personal plugin

fusiondirectory-setup -ldif-deprecated will output an ldif file on the console that you can use with ldapmodify to clean you ldap server from old attributes.

If they are old objectClasses it will warn you and you will have to remove it by hand, they have been specified at the fusiondirectory-setup -check-deprecated step at the exception of the gosaAccount class that is migrated with fusiondirectory-setup -migrate-users like mentioned above.

Please read it carefully before applying

From:
https://documentation.fusiondirectory.org/ - FusionDirectory Documentation

Permanent link:
https://documentation.fusiondirectory.org/en/documentation/admin_installation_migration_1.0.9.2

Last update: 2016/01/15 09:02
Migrate FusionDirectory from 1.0.9.2 to 1.0.9.3

Ubuntu 12.0.4 TLS users

⚠️ Since 1.0.9.2 FusionDirectory need the php-cas library for CAS server support. This library can normally found in universe in the Ubuntu repositories.

In case you did not find it, grab the deb from here and install it

http://packages.ubuntu.com/trusty/all/php-cas/download

and select your preferred mirror

Upgrade FusionDirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

```bash
apt-get install fusiondirectory
```

Upgrade FusionDirectory schema package too.

```bash
apt-get install fusiondirectory-schema
```

Upgrade of LDAP directory

Upgrade the core configuration schema

```bash
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/core-fd-conf.schema
```

if your are using the system plugin you have to update his schema

```bash
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/service-fd.schema
```

if your are using the repository plugin you have to update his schema

```bash
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/repository-fd.schema
```

Remove old schema from /etc/ldap/schema/fusiondirectory
The old schema are not automatically removed from /etc/ldap/schema/fusiondirectory. You can safely remove `recovery-fd.schema` and `asterisk-fd.conf` if they still exist.

**Check for deprecated attributes and objectClasses in your LDAP**

`fusiondirectory-setup --list-deprecated` show deprecated attributes and objectClasses for FusionDirectory.

```
fusiondirectory-setup --list-deprecated
List deprecated attributes and objectclasses
Depreciated attributes:
  gotoModules                  (G0to - Gonicus Terminal Concept, value 1.3.6.1.4.1.10098.1.1.1.32)
  fdPasswordHook              (FusionDirectory - Password hook (external command)) 1.3.6.1.4.1.38414.8.13.4
  fdSnapshotURI               (FusionDirectory - Snaphost URI) 1.3.6.1.4.1.38414.8.17.3
  gotoXVsync                  (G0to - Gonicus Terminal Concept, value xVsync.) 1.3.6.1.4.1.10098.1.1.1.19
  ghSoundAdapter              (Hardware definitions, value soundAdapter) 1.3.6.1.4.1.10098.1.1.1.2.7
  gotoXMmuseport              (G0to - Gonicus Terminal Concept, value XMmuseport.) 1.3.6.1.4.1.10098.1.1.1.22
  gotoXMonitor                (G0to - Gonicus Terminal Concept, value XMonitor.) 1.3.6.1.4.1.10098.1.1.1.17
  gotoAdaptPath               (G0to - Gonicus Terminal Concept, value adaptpath.) 1.3.6.1.4.1.10098.1.1.1.33
  gotoScannerClients          (G0to - Gonicus Terminal Concept, value scannerClients.) 1.3.6.1.4.1.10098.1.1.1.11
  gotoHardwareChecksum        (G0to - quick way to see if something has changed) 1.3.6.1.4.1.10098.1.1.1.2.12
  gotoRootPasswd              (G0to - Gonicus Terminal Concept, value rootPasswd.) 1.3.6.1.4.1.10098.1.1.1.14
  gotoXKblayout               (G0to - Gonicus Terminal Concept, value XKblayout.) 1.3.6.1.4.1.10098.1.1.1.26
  gotoProfileServer           (G0to - specifies the profile server) 1.3.6.1.4.1.10098.1.1.1.1.8
  fdAccountRDN                (FusionDirectory - use a placeholder pattern for generating account RDNs) 1.3.6.1.4.1.38414.8.12.2
  gotoScannerEnable           (G0to - Gonicus Terminal Concept, value scannerEnable.) 1.3.6.1.4.1.10098.1.1.1.10
  ghGfxAdapter                (Hardware definitions, value Grafikkarte) 1.3.6.1.4.1.10098.1.1.1.2.9
  gotoFontPath                (G0to - Gonicus Terminal Concept, value fontPath.) 1.3.6.1.4.1.10098.1.1.1.5
  ghIdeDev                    (Hardware definitions, value ideDev) 1.3.6.1.4.1.10098.1.1.1.2.4
  gotoLpdEnable               (G0to - Gonicus Terminal Concept, value lpdEnable.) 1.3.6.1.4.1.10098.1.1.1.9
  gotoXKblVariant             (G0to - Gonicus Terminal Concept, value 1.3.6.1.4.1.10098.1.1.1.11.8)
```
xKbvariant.) - 1.3.6.1.4.1.10098.1.1.1.27
fdRfc2307bis - (FusionDirectory - rfc2307bis)
- 1.3.6.1.4.1.38414.8.10.1
gotoAutoFs (G0to - Gonicus Terminal Concept, value autofs.) - 1.3.6.1.4.1.10098.1.1.1.31
gotoSndModule (G0to - Gonicus Terminal Concept, value sound Modules.) - 1.3.6.1.4.1.10098.1.1.1.29
gotoCdromEnable (G0to - Gonicus Terminal Concept, value cdromEnable.) - 1.3.6.1.4.1.10098.1.1.1.8
gotoScannerModel (G0to - Gonicus Terminal Concept, value scannerModel.) - 1.3.6.1.4.1.10098.1.1.1.40
gosaLoginRestriction (G0sa - Multivalue attribute to carry a number of allowed ips/subnets) - 1.3.6.1.4.1.10098.1.1.12.46
gotoXColordepth (G0to - Gonicus Terminal Concept, value xColordepth.) - 1.3.6.1.4.1.10098.1.1.1.21
academicTitle (Field to represent the academic title)
- 1.3.6.1.4.1.10098.1.1.6.2
fdSnapshotAdminDn (FusionDirectory - Snaphost admin dn)
- 1.3.6.1.4.1.38414.8.17.4
gotoFilesystem (G0to - Gonicus Terminal Concept, value filesystem.) - 1.3.6.1.4.1.10098.1.1.1.6
ghInventoryNumber (Unique number for inclusion in an inventory) - 1.3.6.1.4.1.10098.1.1.2.10
gosaSubtreeACL (G0sa - ACL entry)
- 1.3.6.1.4.1.10098.1.1.12.1
fdIdGenerator (FusionDirectory - An automatic way to generate new user ids) - 1.3.6.1.4.1.38414.8.12.4
ghUsbSupport (Hardware definitions, value usbSupport)
- 1.3.6.1.4.1.10098.1.1.2.3
gotoSysStatus (Keeps current system status - info shown in G0sa)
- 1.3.6.1.4.1.10098.1.1.2.11
fdCopyPaste (FusionDirectory - (de)Activate copy/paste)
- 1.3.6.1.4.1.38414.8.14.5
gotoXDriver (G0to - Gonicus Terminal Concept, value xDriver.) - 1.3.6.1.4.1.10098.1.1.1.28
gotoXKbModel (G0to - Gonicus Terminal Concept, value xKbmodel.) - 1.3.6.1.4.1.10098.1.1.1.25
fdPersonalTitleInDN (FusionDirectory - Personal title in dn)
- 1.3.6.1.4.1.38414.8.12.5
gotoLpdServer (G0to - Gonicus Terminal Concept, value lpdServer.) - 1.3.6.1.4.1.10098.1.1.1.4
gotoXHsync (G0to - Gonicus Terminal Concept, value xHsync.) - 1.3.6.1.4.1.10098.1.1.1.18
gotoProfileFlags (G0to - Flags for Profile handling - C is for caching) - 1.3.6.1.4.1.10098.1.1.1.18
ghCpuType (Hardware definitions, value cpuType)
- 1.3.6.1.4.1.10098.1.1.12.1
gotoXResolution (G0to - Gonicus Terminal Concept, value xResolution.) - 1.3.6.1.4.1.10098.1.1.1.20
gotoShare (G0to - specifies a share)
- 1.3.6.1.4.1.10098.1.1.11.9
gotoScannerBackend (G0to - Gonicus Terminal Concept, value scannerBackend.) - 1.3.6.1.4.1.10098.1.1.1.39
fdSnapshotAdminPassword (FusionDirectory - Snapshost admin password) - 1.3.6.1.4.1.38414.8.17.5
fdVoicemailContexts (FusionDirectory - available voicemail contexts) - 1.3.6.1.4.1.38414.19.11.2
gosaDefaultLanguage (GOsa - Defines the default language for a user) - 1.3.6.1.4.1.10098.1.1.12.14
ghMemSize (Hardware definitions, value memSize) - 1.3.6.1.4.1.10098.1.1.12.2
gotoProfileQuota (G0to - save quota for home) - 1.3.6.1.4.1.10098.1.1.11.15
fdSipContexts (FusionDirectory - available sip contexts) - 1.3.6.1.4.1.38414.19.11.1
fdPhoneConferenceRDN (FusionDirectory - Phone conference RDN) - 1.3.6.1.4.1.38414.19.10.3
ghScsiDev (Hardware definitions, value scsiDev) - 1.3.6.1.4.1.10098.1.1.12.5
fdPhoneMacroRDN (FusionDirectory - Phone macro RDN) - 1.3.6.1.4.1.38414.19.10.2
ghNetNic (Hardware definitions, value Network Device) - 1.3.6.1.4.1.10098.1.1.12.8
gotoFloppyEnable (G0to - Gonicus Terminal Concept, value floppyEnable.) - 1.3.6.1.4.1.10098.1.1.1.7
gotoXMouseButtons (G0to - Gonicus Terminal Concept, value xMouseButtons.) - 1.3.6.1.4.1.10098.1.1.1.23
gotoXMouseType (Hardware definitions, value Type of mouse) - 1.3.6.1.4.1.10098.1.1.1.34

Deprecated objectClasses:
goCupsServer (CUPS server description) - 1.3.6.1.4.1.10098.1.2.1.23
gosaCacheEntry (GOsa - Class for GOsa caching) - 1.3.6.1.4.1.10098.1.2.1.19.3
gosaUserTemplate (GOsa - Class for GOsa User Templates) - 1.3.6.1.4.1.10098.1.2.1.19.11
gosaAccount (GOsa - Class for GOsa Accounts) - 1.3.6.1.4.1.10098.1.2.1.19.6
gosaObject (GOsa - Class for GOsa settings) - 1.3.6.1.4.1.10098.1.2.1.19.1

**fusiondirectory-setup --check-deprecated** will output a list of dn using old attributes and objectClasses of they are present in your ldap server

**fusiondirectory-setup --check-deprecated**
List LDAP entries using deprecated attributes or objectclasses
There are no entries in the LDAP using obsolete attributes
There are no entries in the LDAP using obsolete classes

**fusiondirectory-setup -migrate-users** can help you migrate you user to the new core classes that are used by FusionDirectory. If they are attributes moved over to the personal plugin, it will automatically migrate them and you juste need to install the personal plugin
**fusiondirectory-setup –ldif-deprecated** will output an ldif file on the console that you can use with ldapmodify to clean you ldap server from old attributes.

If they are old objectClasses it will warn you and you will have to remove it by hand, they have been specified at the **fusiondirectory-setup –check-deprecated** step at the exception of the gosaAccount class that is migrated with **fusiondirectory-setup –migrate-users** like mentioned above.

Please read it carefully before applying😢😢
Migrate FusionDirectory from 1.0.9.3 to 1.0.10

Ubuntu 12.0.4 TLS users

⚠️ Since 1.0.9.2 FusionDirectory need the php-cas library for CAS server support. This library can normally found in universe in the Ubuntu repositories.

In case you did not find it, grab the deb from here and install it

http://packages.ubuntu.com/trusty/all/php-cas/download

and select your preferred mirror

Upgrade FusionDirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

```bash
apt-get install fusiondirectory
```

Upgrade FusionDirectory schema package too.

```bash
apt-get install fusiondirectory-schema
```

Upgrade of LDAP directory

Upgrade the core configuration schema

```bash
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/core-fd.schema
```

```bash
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/core-fd-conf.schema
```

if your are using the personal plugin you have to update its schema

```bash
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/personal-fd.schema
```

if your are using the system plugin you have to update its schemas

```bash
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/systems-fd.schema
```

```bash
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/systems-fd.conf.schema
```
fd-conf.schema

fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/service-fd.schema

if your are using the dns plugin you have to update its schema

fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/dns-fd-conf.schema

and install a new schema

fusiondirectory-insert-schema -i /etc/ldap/schema/fusiondirectory/dns-fd.schema

Remove old schema from /etc/ldap/schema/fusiondirectory

The old schema are not automatically removed from /etc/ldap/schema/fusiondirectory. You can safely remove recovery-fd.schema and asterisk-fd.conf if they still exist

Check for deprecated attributes and objectClasses in your LDAP

fusiondirectory-setup --list-deprecated show deprecated attributes and objectclasses for FusionDirectory

fusiondirectory-setup --list-deprecated
List deprecated attributes and objectclasses

Deprecated attributes:
gotoFilesystem (G0to - Gonicus Terminal Concept, value filesystem.) - 1.3.6.1.4.1.10098.1.1.1.6
gotoFloppyEnable (G0to - Gonicus Terminal Concept, value floppyEnable.) - 1.3.6.1.4.1.10098.1.1.1.7
gotoSysStatus (Keeps current system status - info shown in G0sa) - 1.3.6.1.4.1.10098.1.1.2.11
gotoXColordepth (G0to - Gonicus Terminal Concept, value xColordepth.) - 1.3.6.1.4.1.10098.1.1.28
gotoHardwareChecksum (G0to - quick way to see if something has changed) - 1.3.6.1.4.1.10098.1.1.2.12
goFaxPassword (Admin password for fax server) - 1.3.6.1.4.1.10098.1.1.9.23
gotoNtpServer (G0to - Gonicus Terminal Concept, value ntpServer.) - 1.3.6.1.4.1.10098.1.1.1.2
gotoXDriver (G0to - Gonicus Terminal Concept, value xDriver.) - 1.3.6.1.4.1.10098.1.1.1.28
fdSnapshotAdminDn (FusionDirectory - Snaphost admin dn) - 1.3.6.1.4.1.38414.8.17.4
fdPersonalTitleInDN (FusionDirectory - Personal title in dn) - 1.3.6.1.4.1.38414.8.12.5

FusionDirectory Documentation - https://documentation.fusiondirectory.org/
gotoXMouseport                 (GOto - Gonicus Terminal Concept, value xMouseport.)            - 1.3.6.1.4.1.10098.1.1.1.22
gotoAdaptPath                  (GOto - Gonicus Terminal Concept, value adaptpath.)             - 1.3.6.1.4.1.10098.1.1.1.33
goFontCountryCode             (Store country code) - 1.3.6.1.4.1.10098.1.1.9.29
gotoSndModule                  (GOto - Gonicus Terminal Concept, value sound Modules.)         - 1.3.6.1.4.1.10098.1.1.1.29
gotoXKbLayout                  (GOto - Gonicus Terminal Concept, value xKblayout.)             - 1.3.6.1.4.1.10098.1.1.1.26
goProfileFlags               (GOto - Flags for Profile handling - C is for caching)          - 1.3.6.1.4.1.10098.1.1.11.7
ghSoundAdapter                 (Hardware definitions, value soundAdapter) - 1.3.6.1.4.1.10098.1.1.1.2.7
gotoScannerModel               (GOto - Gonicus Terminal Concept, value scannerModel.)          - 1.3.6.1.4.1.10098.1.1.1.40
gotoScannerEnable              (GOto - Gonicus Terminal Concept, value scannerEnable.)         - 1.3.6.1.4.1.10098.1.1.1.10
gosaSubtreeACL                 (GOsa - ACL entry) - 1.3.6.1.4.1.10098.1.1.12.1
ghUsbSupport                   (Hardware definitions, value usbSupport) - 1.3.6.1.4.1.10098.1.1.1.2.3
gotoLpdEnable                  (GOto - Gonicus Terminal Concept, value lpdEnable.)             - 1.3.6.1.4.1.10098.1.1.1.9
goProfileQuota               (GOto - save quota for home) - 1.3.6.1.4.1.10098.1.1.1.15
gotoScannerBackend             (GOto - Gonicus Terminal Concept, value scannerBackend.)        - 1.3.6.1.4.1.10098.1.1.1.39
goSyslogSection                (What sections wants the server for its syslog service? i.e. *.*) - 1.3.6.1.4.1.10098.1.1.9.9
fdAccountRDN                   (FusionDirectory - use a placeholder pattern for generating account RDNs) - 1.3.6.1.4.1.38414.8.12.2
goFaxAdmin                     (Admin principal for fax server) - 1.3.6.1.4.1.10098.1.1.9.22
goLogDriver                    (FD logging MDB2 driver name) - 1.3.6.1.4.1.10098.1.1.9.84
ghNetNic                       (Hardware definitions, value Network Device) - 1.3.6.1.4.1.10098.1.1.2.8
academicTitle                  (Field to represent the academic title) - 1.3.6.1.4.1.10098.1.1.6.2
fdPhoneMacroRDN                 (FusionDirectory - Phone macro RDN) - 1.3.6.1.4.1.38414.19.10.2
gosaLoginRestriction           (GOsa - Multivalue attribute to carry a number of allowed ips/subnets) - 1.3.6.1.4.1.10098.1.1.12.46
gotoLpdServer                  (GOto - Gonicus Terminal Concept, value lpdServer.)             - 1.3.6.1.4.1.10098.1.1.1.4
ghCpuType                      (Hardware definitions, value cpuType) - 1.3.6.1.4.1.10098.1.1.2.1
goXMonitor                    (GOto - Gonicus Terminal Concept, value xMonitor.)             - 1.3.6.1.4.1.10098.1.1.1.17
fdRfc2307bis                   (FusionDirectory - rfc2307bis)
- 1.3.6.1.4.1.38414.8.10.1
goToXVsync (G0to - Gonicus Terminal Concept, value xVsync.) - 1.3.6.1.4.1.10098.1.1.1.19

fdSipContexts (FusionDirectory - available sip contexts)
- 1.3.6.1.4.1.38414.19.11.1
goToShare (G0to - specifies a share)
- 1.3.6.1.4.1.10098.1.1.11.9

fdCopyPaste (FusionDirectory - (de)Activate copy/paste)
- 1.3.6.1.4.1.38414.8.14.5
goLogPassword (Admin password for log server)
- 1.3.6.1.4.1.10098.1.1.9.25
goToCdromEnable (G0to - Gonicus Terminal Concept, value cdromEnable.) - 1.3.6.1.4.1.10098.1.1.1.8

goToProfileServer (G0to - specifies the profile server)
- 1.3.6.1.4.1.10098.1.1.11.8

fdSnapshotAdminPassword (FusionDirectory - Snaphost admin password)
- 1.3.6.1.4.1.38414.8.17.5
ghMemSize (Hardware definitions, value memSize)
- 1.3.6.1.4.1.10098.1.1.2.2

fdSnapshotURI (FusionDirectory - Snaphost URI)
- 1.3.6.1.4.1.38414.8.17.3
goAutoFs (G0to - Gonicus Terminal Concept, value autofs.) - 1.3.6.1.4.1.10098.1.1.1.31

go FonAreaCode (Store area code)
- 1.3.6.1.4.1.10098.1.1.9.28

ghInventoryNumber (Unique number for inclusion in an inventory) - 1.3.6.1.4.1.10098.1.1.2.10

fdPhoneConferenceRDN (FusionDirectory - Phone conference RDN)
- 1.3.6.1.4.1.38414.19.10.3
goToXMouseType (Hardware definitions, value Type of mouse)
- 1.3.6.1.4.1.10098.1.1.1.34

fdPrimaryGroupFilter (FusionDirectory - Primary group filter)
- 1.3.6.1.4.1.38414.8.14.1
goToXHsync (G0to - Gonicus Terminal Concept, value xHsync.) - 1.3.6.1.4.1.10098.1.1.1.19.18

gosaDefaultLanguage (G0sa - Defines the default language for a user) - 1.3.6.1.4.1.10098.1.1.12.14

ghIdeDev (Hardware definitions, value ideDev)
- 1.3.6.1.4.1.10098.1.1.2.4
goToXKbVariant (G0to - Gonicus Terminal Concept, value xKbVariant.) - 1.3.6.1.4.1.10098.1.1.1.27

goToModules (G0to - Gonicus Terminal Concept, value kernel modules.) - 1.3.6.1.4.1.10098.1.1.1.32

goToXMouseButtons (G0to - Gonicus Terminal Concept, value xMouseButtons.) - 1.3.6.1.4.1.10098.1.1.1.23

fdIdGenerator (FusionDirectory - An automatic way to generate new user ids)
- 1.3.6.1.4.1.38414.8.12.4

fdVoicemailContexts (FusionDirectory - available voicemail contexts)
- 1.3.6.1.4.1.38414.19.11.2

ghScsiDev (Hardware definitions, value scsiDev)
- 1.3.6.1.4.1.10098.1.1.2.5
goFonAdmin                     (Admin user for fon server)
- 1.3.6.1.4.1.10098.1.1.9.26
ghGfxAdapter                   (Hardware definitions, value Grafikkarte)
- 1.3.6.1.4.1.10098.1.1.2.9
fdPasswordHook                 (FusionDirectory - Password hook (external command))
- 1.3.6.1.4.1.38414.8.13.4
goToXkbModel                   (GOn - Gonicus Terminal Concept, value xKbmodel.)
xKbmodel.)              - 1.3.6.1.4.1.10098.1.1.1.25
gotoRootPasswd                 (GOn - Gonicus Terminal Concept, value rootPasswd.)
- 1.3.6.1.4.1.10098.1.1.1.14
goLogDB                        (GOsa logging DB name)
- 1.3.6.1.4.1.10098.1.1.9.83
goLogAdmin                     (Admin user for log server)
- 1.3.6.1.4.1.10098.1.1.9.24
goToXResolution                (GOn - Gonicus Terminal Concept, value xResolution.)
xResolution.)           - 1.3.6.1.4.1.10098.1.1.1.20
gotoScannerClients             (GOn - Gonicus Terminal Concept, value scannerClients.)
scannerClients.)        - 1.3.6.1.4.1.10098.1.1.1.11
goToFontPath                   (GOn - Gonicus Terminal Concept, value fontPath.)
- 1.3.6.1.4.1.10098.1.1.1.5
goFonPassword                  (Admin password for fon server)
- 1.3.6.1.4.1.10098.1.1.9.27

Deprecated objectClasses:
goNfsServer                    (NFS server description)
- 1.3.6.1.4.1.10098.1.2.1.19
goCupsServer                   (CUPS server description)
- 1.3.6.1.4.1.10098.1.2.1.23
goSaCacheEntry                 (GOsa - Class for GOsa caching)
- 1.3.6.1.4.1.10098.1.2.1.19.3
goSaObject                     (GOsa - Class for GOsa settings)
- 1.3.6.1.4.1.10098.1.2.1.19.1
goFonServer                    (Fon server description)
- 1.3.6.1.4.1.10098.1.2.1.26
goSaUserTemplate               (GOsa - Class for GOsa User Templates)
- 1.3.6.1.4.1.10098.1.2.1.19.11
goSaAccount                    (GOsa - Class for GOsa Accounts)
- 1.3.6.1.4.1.10098.1.2.1.19.6
goLogDBServer                  (Log DB server description)
- 1.3.6.1.4.1.10098.1.2.1.28
goSyslogServer                 (Syslog server description)
- 1.3.6.1.4.1.10098.1.2.1.21
goNtpServer                    (Time server description)
- 1.3.6.1.4.1.10098.1.2.1.20

`fusiondirectory-setup -check-deprecated` will output a list of dn using old attributes and objectClasses of they are present in your ldap server

`fusiondirectory-setup --check-deprecated`
List LDAP entries using deprecated attributes or objectClasses
There are no entries in the LDAP using obsolete attributes
There are no entries in the LDAP using obsolete classes

**fusiondirectory-setup -ldif-deprecated** will output an ldif file on the console that you can use with ldapmodify to clean you ldap server from old attributes.

If they are old objectClasses it will warn you and you will have to remove it by hand, they have been specified at the **fusiondirectory-setup -check-deprecated** step.

Please read it carefully before applying

**Migrate your DNS entries**

if you where using the DNS plugin in 1.0.9, you need to migrate to entries to the new DNS plugin, run the **fusiondirectory-setup -migrate-dns** for this

**fusiondirectory-setup --migrate-dns**
Migrate FusionDirectory from 1.0.10 to 1.0.11

Ubuntu 12.0.4 TLS users

Since 1.0.9.2 FusionDirectory need the php-cas library for CAS server support. This library can normally found in universe in the Ubuntu repositories.

In case you did not find it, grab the deb from here and install it

http://packages.ubuntu.com/trusty/all/php-cas/download

and select your preferred mirror

Upgrade FusionDirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

```
apt-get install fusiondirectory
```

Upgrade FusionDirectory schema package too.

```
apt-get install fusiondirectory-schema
```

Then upgrade the rest of your plugins
Migrate FusionDirectory from 1.0.11 to 1.0.12

Ubuntu 12.0.4 TLS users

⚠️ Since 1.0.9.2 FusionDirectory need the php-cas library for CAS server support. This library can normally found in universe in the Ubuntu repositories.

In case you did not find it, grab the deb from here and install it

http://packages.ubuntu.com/trusty/all/php-cas/download

and select your preferred mirror

Mail

In this version the mail plugin has been cleaned and his dependency to the systems has been removed. In the mean time the postfix and spamassassin service have been moved in their own plugins. The antivirus service have been removed.

The old spamassasin settings from the mail / user tab have been rewritten and moved to a spamassasin, they now support the real LDAP backend of spamassasin. So you will need to move your data to the new format before using them.

Upgrade FusionDirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

```bash
apt-get install fusiondirectory
```

Upgrade FusionDirectory schema package too.

```bash
apt-get install fusiondirectory-schema
```

Upgrade of LDAP directory

if your are using the mail plugin you have to update its schema

```bash
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/mail-fd.schema
```

```bash
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/mail-fd-conf.schema
```
if your are using the system plugin you have to update its schemas

```bash
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/service-fd.schema
```

### Postfix plugin

if you where using the postfix service in 1.0.11, you need to install the postfix plugin and insert the postfix schema

```bash
apt-get install fusiondirectory-plugin-postfix
apt-get install fusiondirectory-plugin-postfix-schema
fusiondirectory-insert-schema -i /etc/ldap/schema/fusiondirectory/postfix-fd.schema
```

### spamassasin plugin

if you where using the spamassassin service in 1.0.11, you need to install the spamassassin plugin and insert the spamassassin schema

```bash
apt-get install fusiondirectory-plugin-spamassassin
apt-get install fusiondirectory-plugin-spamassassin-schema
fusiondirectory-insert-schema -i /etc/ldap/schema/fusiondirectory/spamassassin-fd.schema
```

### Remove old schema from /etc/ldap/schema/fusiondirectory

The old schema are not automatically removed from /etc/ldap/schema/fusiondirectory. You can safely remove `recovery-fd.schema` and `asterisk-fd.conf` if they still exist.

### Check for deprecated attributes and objectClasses in your LDAP

The `list-deprecated` option of `fusiondirectory-setup` show deprecated attributes and objectClasses for FusionDirectory

```bash
fusiondirectory-setup --list-deprecated
List deprecated attributes and objectclasses
Deprecated attributes:
gotoFilesystem filesystem.) - 1.3.6.1.4.1.10098.1.1.1.6

gotoFloppyEnable (G0to - Gonicus Terminal Concept, value
```
floppyEnable.) - 1.3.6.1.4.1.10098.1.1.1.7
gotoSysStatus (Keeps current system status - info shown in G0sa) - 1.3.6.1.4.1.10098.1.1.2.11
gotoXColordepth (G0to - Gonicus Terminal Concept, value xColordepth.) - 1.3.6.1.4.1.10098.1.1.1.21
gotoHardwareChecksum (G0to - quick way to see if something has changed) - 1.3.6.1.4.1.10098.1.1.2.12
goFaxPassword (Admin password for fax server)
- 1.3.6.1.4.1.10098.1.1.9.23
gotoNtpServer (G0to - Gonicus Terminal Concept, value ntpServer.) - 1.3.6.1.4.1.10098.1.1.1.2
gotoXDriver (G0to - Gonicus Terminal Concept, value xDriver.) - 1.3.6.1.4.1.10098.1.1.1.28
gOsaSubtreeACL (GOsa - ACL entry)
- 1.3.6.1.4.1.10098.1.1.12.1
goSnapShotAdminDn (FusionDirectory - Snaphost admin dn)
- 1.3.6.1.4.1.38414.8.17.4
gdPersonalTitleInDN (FusionDirectory - Personal title in dn)
- 1.3.6.1.4.1.38414.8.12.5
gotoXMouseport (G0to - Gonicus Terminal Concept, value xMouseport.) - 1.3.6.1.4.1.10098.1.1.1.22
gotoAdaptPath (G0to - Gonicus Terminal Concept, value adaptPath.) - 1.3.6.1.4.1.10098.1.1.1.33
goCountryCode (Store country code)
- 1.3.6.1.4.1.10098.1.1.9.29
gotoSndModule (G0to - Gonicus Terminal Concept, value sound Modules.) - 1.3.6.1.4.1.10098.1.1.1.29
gotoXKblayout (G0to - Gonicus Terminal Concept, value xKblayout.) - 1.3.6.1.4.1.10098.1.1.1.26
gotoProfileFlags (G0to - Flags for Profile handling - C is for caching) - 1.3.6.1.4.1.10098.1.1.11.7
goSoundAdapter (Hardware definitions, value soundAdapter)
- 1.3.6.1.4.1.10098.1.1.2.7
gotoScannerModel (G0to - Gonicus Terminal Concept, value scannerModel.) - 1.3.6.1.4.1.10098.1.1.1.40
gotoScannerEnable (G0to - Gonicus Terminal Concept, value scannerEnable.) - 1.3.6.1.4.1.10098.1.1.1.10
gOsaSubtreeACL (G0sa - ACL entry)
- 1.3.6.1.4.1.10098.1.1.12.1
goUsbSupport (Hardware definitions, value usbSupport)
- 1.3.6.1.4.1.10098.1.1.2.3
goLpdEnable (G0to - Gonicus Terminal Concept, value lpdEnable.) - 1.3.6.1.4.1.10098.1.1.1.9
goProfileQuota (G0to - save quota for home)
- 1.3.6.1.4.1.10098.1.1.11.15
goScannerBackend (G0to - Gonicus Terminal Concept, value scannerBackend.) - 1.3.6.1.4.1.10098.1.1.1.39
goSyslogSection (What sections wants the server for its sysLog service? i.e. *.*) - 1.3.6.1.4.1.10098.1.1.9.9
goAccountRDN (FusionDirectory - use a placeholder pattern for generating account RDNs)
- 1.3.6.1.4.1.38414.8.12.2
goFaxAdmin (Admin principal for fax server)
- 1.3.6.1.4.1.10098.1.1.9.22
<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>goLogDriver</td>
<td>(FD logging MDB2 driver name)</td>
</tr>
<tr>
<td>ghNetNic</td>
<td>(Hardware definitions, value Network Device)</td>
</tr>
<tr>
<td>academicTitle</td>
<td>(Field to represent the academic title)</td>
</tr>
<tr>
<td>fdPhoneMacroRDN</td>
<td>(FusionDirectory - Phone macro RDN)</td>
</tr>
<tr>
<td>gosaLoginRestriction</td>
<td>(GOsa - Multivalue attribute to carry a number of allowed ips/subnets)</td>
</tr>
<tr>
<td>gotoLpdServer</td>
<td>(GOno - Gonicus Terminal Concept, value lpdServer.)</td>
</tr>
<tr>
<td>ghCpuType</td>
<td>(Hardware definitions, value cpuType)</td>
</tr>
<tr>
<td>gotoXMonitor</td>
<td>(GOno - Gonicus Terminal Concept, value xMonitor.)</td>
</tr>
<tr>
<td>fdRfc2307bis</td>
<td>(FusionDirectory - rfc2307bis)</td>
</tr>
<tr>
<td>gotoXVsync</td>
<td>(GOno - Gonicus Terminal Concept, value xVsync.)</td>
</tr>
<tr>
<td>fdSipContexts</td>
<td>(FusionDirectory - available sip contexts)</td>
</tr>
<tr>
<td>gotoShare</td>
<td>(GOno - specifies a share)</td>
</tr>
<tr>
<td>fdCopyPaste</td>
<td>(FusionDirectory - (de)Activate copy/paste)</td>
</tr>
<tr>
<td>goLogPassword</td>
<td>(Admin password for log server)</td>
</tr>
<tr>
<td>gotoCdromEnable</td>
<td>(GOno - Gonicus Terminal Concept, value cdromEnable.)</td>
</tr>
<tr>
<td>gotoProfileServer</td>
<td>(GOno - specifies the profile server)</td>
</tr>
<tr>
<td>fdSnapshotAdminPassword</td>
<td>(FusionDirectory - Snaphost admin password)</td>
</tr>
<tr>
<td>ghMemSize</td>
<td>(Hardware definitions, value memSize)</td>
</tr>
<tr>
<td>fdSnapshotURI</td>
<td>(FusionDirectory - Snaphost URI)</td>
</tr>
<tr>
<td>gotoAutoFs</td>
<td>(GOno - Gonicus Terminal Concept, value autos.)</td>
</tr>
<tr>
<td>goFonAreaCode</td>
<td>(Store area code)</td>
</tr>
<tr>
<td>ghInventoryNumber</td>
<td>(Unique number for inclusion in an inventory)</td>
</tr>
<tr>
<td>fdPhoneConferenceRDN</td>
<td>(FusionDirectory - Phone conference RDN)</td>
</tr>
<tr>
<td>gotoXMouseType</td>
<td>(Hardware definitions, value Type of mouse)</td>
</tr>
<tr>
<td>fdPrimaryGroupFilter</td>
<td>(FusionDirectory - Primary group filter)</td>
</tr>
<tr>
<td>gotoXHsync</td>
<td>(GOno - Gonicus Terminal Concept, value gotoXHsync)</td>
</tr>
</tbody>
</table>
xHsync.)                - 1.3.6.1.4.1.10098.1.1.1.18
  gosaDefaultLanguage            (GOsa - Defines the default language for a user)                - 1.3.6.1.4.1.10098.1.1.12.14
  ghIdeDev - 1.3.6.1.4.1.10098.1.1.12.4
  gotoXKbVariant               (GOn - Gonicus Terminal Concept, value xKbvariant.)            - 1.3.6.1.4.1.10098.1.1.1.25
  xKbvariant.)                - 1.3.6.1.4.1.10098.1.1.1.27
  gotoModules - 1.3.6.1.4.1.10098.1.1.1.6.12.12
  kernel modules.)             - 1.3.6.1.4.1.10098.1.1.1.32
  gotoXMmouseButtons           (GOn - Gonicus Terminal Concept, value xMouseButtons.)         - 1.3.6.1.4.1.10098.1.1.1.23
  fIddGenerator - 1.3.6.1.4.1.10098.1.1.1.1.18
  fdPasswordHook - 1.3.6.1.4.1.38414.8.13.4
  gotoXKbModel                 (GOn - Gonicus Terminal Concept, value xKbmodel.)              - 1.3.6.1.4.1.10098.1.1.1.25
  gotoRootPasswd               (GOn - Gonicus Terminal Concept, value rootPasswd.)            - 1.3.6.1.4.1.10098.1.1.1.14
  goLogDB - 1.3.6.1.4.1.38414.8.13.2
  goLogAdmin - 1.3.6.1.4.1.10098.1.1.9.26
  ghGfxAdapter - 1.3.6.1.4.1.10098.1.1.2.9
  fIddGenerator - 1.3.6.1.4.1.38414.8.13.4
  goFonPassword - 1.3.6.1.4.1.10098.1.1.9.27
  Deprecated objectClasses:
  goNfsServer - 1.3.6.1.4.1.10098.1.1.9.19
  goCupsServer - 1.3.6.1.4.1.10098.1.1.1.23
  gosaCacheEntry - 1.3.6.1.4.1.10098.1.1.1.19
  gosaObject - 1.3.6.1.4.1.10098.1.1.1.19.3
  goFonPassword - 1.3.6.1.4.1.10098.1.1.9.27
  Admin password for fon server
  Admin user for log server
  Admin user for fon server
  (NFS server description)
  (CUPS server description)
  (GOsa - Class for GOsa caching)
  (GOsa - Class for GOsa settings)
  (Fax server description)
  (Fon server description)
- 1.3.6.1.4.1.10098.1.2.1.29  
gosaUserTemplate               (GOsa - Class for GOsa User Templates)  
- 1.3.6.1.4.1.10098.1.2.1.19.11  
gosaAccount                    (GOsa - Class for GOsa Accounts)  
- 1.3.6.1.4.1.10098.1.2.1.19.6  
goLogDBServer                  (Log DB server description)  
- 1.3.6.1.4.1.10098.1.2.1.28  
goSyslogServer                 (Syslog server description)  
- 1.3.6.1.4.1.10098.1.2.1.21  
goNtpServer                    (Time server description)  
- 1.3.6.1.4.1.10098.1.2.1.20

The **check-deprecated** option will output a list of dn using old attributes and objectClasses of they are present in your ldap server

```bash
fusiondirectory-setup --check-deprecated  
List LDAP entries using deprecated attributes or objectclasses  
There are no entries in the LDAP using obsolete attributes  
There are no entries in the LDAP using obsolete classes
```

The **ldif-deprecated** option will output an ldif file on the console that you can use with ldapmodify to clean you ldap server from old attributes.

```bash
fusiondirectory-setup --ldif-deprecated > remove_deprecated.ldif
```

If they are old objectClasses it will warn you and you will have to remove them by hand, they have been specified at the **check-deprecated** step.

Please read it carefully before applying 📌

---

From:  
https://documentation.fusiondirectory.org/  -  FusionDirectory Documentation

Permanent link:  
https://documentation.fusiondirectory.org/en/documentation/admin_installation_migration_1.0.12

Last update: 2016/05/09 08:58
Migrate FusionDirectory from 1.0.12 to 1.0.13

Ubuntu 12.0.4 TLS users

⚠️ Since 1.0.9.2 FusionDirectory need the php-cas library for CAS server support. This library can normally found in universe in the Ubuntu repositories.

In case you did not find it, grab the deb from here and install it

http://packages.ubuntu.com/trusty/all/php-cas/download

and select your preferred mirror

Upgrade FusionDirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

```bash
apt-get install fusiondirectory
```

Upgrade FusionDirectory schema package too.

```bash
apt-get install fusiondirectory-schema
```

Upgrade of LDAP directory

if your are using the alias plugin you have to update its schema

```bash
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/alias-fd.schema
```

Remove old schema from /etc/ldap/schema/fusiondirectory

The old schema are not automatically removed from /etc/ldap/schema/fusiondirectory. You can safely remove `recovery-fd.schema` and `asterisk-fd.conf` if they still exist

Check for deprecated attributes and objectClasses in your LDAP

The `list-deprecated` option of `fusiondirectory-setup` show deprecated attributes and objectClasses for FusionDirectory

```bash
fusiondirectory-setup --list-deprecated
```
List deprecated attributes and objectclasses

Deprecated attributes:

- gotoFilesystem                 (G0to - Gonicus Terminal Concept, value filesystem.)            - 1.3.6.1.4.1.10098.1.1.1.6
- gotoFloppyEnable               (G0to - Gonicus Terminal Concept, value floppyEnable.)          - 1.3.6.1.4.1.10098.1.1.1.7
- gotoSysStatus                  (Keeps current system status - info shown in G0sa)              - 1.3.6.1.4.1.10098.1.1.2.11
- gotoXColordepth                (G0to - Gonicus Terminal Concept, value xColordepth.)           - 1.3.6.1.4.1.10098.1.1.1.21
- gotoHardwareChecksum           (G0to - quick way to see if something has changed)              - 1.3.6.1.4.1.10098.1.1.2.12
- goFaxPassword                  (Admin password for fax server)                                    - 1.3.6.1.4.1.10098.1.1.9.23
- gotoNtpServer                  (G0to - Gonicus Terminal Concept, value ntpServer.)            - 1.3.6.1.4.1.10098.1.1.1.2
- gotoXDriver                    (G0to - Gonicus Terminal Concept, value xDriver.)              - 1.3.6.1.4.1.10098.1.1.1.28
- fdSnapshotAdminDn              (FusionDirectory - Snaphost admin dn)                          - 1.3.6.1.4.1.38414.8.17.4
- fdPersonalTitleInDN            (FusionDirectory - Personal title in dn)                               - 1.3.6.1.4.1.38414.8.12.5
- gotoXMousetport                (G0to - Gonicus Terminal Concept, value xMouseport.)          - 1.3.6.1.4.1.10098.1.1.1.22
- gotoAdaptPath                  (G0to - Gonicus Terminal Concept, value adaptpath.)            - 1.3.6.1.4.1.10098.1.1.1.33
- goFonCountryCode               (Store country code)                                            - 1.3.6.1.4.1.10098.1.1.9.29
- gotoSndModule                  (G0to - Gonicus Terminal Concept, value sound Modules.)          - 1.3.6.1.4.1.10098.1.1.2.7
- goto XKbLayout                 (G0to - Gonicus Terminal Concept, value xKbLayout.)            - 1.3.6.1.4.1.10098.1.1.26
- gotoProfileFlags               (G0to - Flags for Profile handling - C is for caching)       - 1.3.6.1.4.1.10098.1.1.11.7
- ghSoundAdapter                 (Hardware definitions, value soundAdapter)                       - 1.3.6.1.4.1.10098.1.1.9.29
- gotoScannerModel               (G0to - Gonicus Terminal Concept, value scannerModel.)         - 1.3.6.1.4.1.10098.1.1.40
- gotoScannerEnable              (G0to - Gonicus Terminal Concept, value scannerEnable.)        - 1.3.6.1.4.1.10098.1.1.1.10
- gosaSubtreeACL                 (G0sa - ACL entry)                                               - 1.3.6.1.4.1.10098.1.1.12.1
- ghUsbSupport                   (Hardware definitions, value usbSupport)                        - 1.3.6.1.4.1.10098.1.1.12.3
- gotoLpdEnable                  (G0to - Gonicus Terminal Concept, value lpdEnable.)          - 1.3.6.1.4.1.10098.1.1.1.9
- gotoProfileQuota               (G0to - save quota for home)                                       - 1.3.6.1.4.1.10098.1.1.11.15
- gotoScannerBackend             (G0to - Gonicus Terminal Concept, value scannerBackend.)        - 1.3.6.1.4.1.10098.1.1.1.39
- goSyslogSection                (What sections wants the server for its
syslog service? i.e. *.*
fdAccountRDN (FusionDirectory - use a placeholder pattern for generating account RDNs)
goFaxAdmin - 1.3.6.1.4.1.10098.1.1.9.22
goLogDriver (FD logging MDB2 driver name)
ghNetNic - 1.3.6.1.4.1.10098.1.1.9.84
academicTitle (Field to represent the academic title)
fdPhoneMacroRDN (FusionDirectory - Phone macro RDN)
gosaLoginRestriction (GOsa - Multivalue attribute to carry a number of allowed ips/subnets) - 1.3.6.1.4.1.10098.1.1.12.46
gotoLpdServer (GOto - Gonicus Terminal Concept, value lpdServer.) - 1.3.6.1.4.1.10098.1.1.1.4
gpuType (Hardware definitions, value cpuType)
gotoXMonitor (GOto - Gonicus Terminal Concept, value xMonitor.) - 1.3.6.1.4.1.10098.1.1.1.17
gOtoRfc2307bis (FusionDirectory - rfc2307bis)
gotoXVsync (GOto - Gonicus Terminal Concept, value xVsync.) - 1.3.6.1.4.1.10098.1.1.1.19
gfdSipContexts (FusionDirectory - available sip contexts)
gotoShare (GOto - specifies a share)
fdCopyPaste (FusionDirectory - (de)Activate copy/paste)
goLogPassword (Admin password for log server)
gotoCdrromEnable (GOto - Gonicus Terminal Concept, value cdrromEnable.) - 1.3.6.1.4.1.10098.1.1.1.8
gotoProfileServer (GOto - specifies the profile server)
fdSnapshotAdminPassword (FusionDirectory - Snaphost admin password)
ghMemSize (Hardware definitions, value memSize)
fdSnapshotURI (FusionDirectory - Snaphost URI)
gotoAutoFs (GOto - Gonicus Terminal Concept, value autoFs.) - 1.3.6.1.4.1.10098.1.1.1.31
goFonAreaCode (Store area code)
ghInventoryNumber (Unique number for inclusion in an inventory)
fdPhoneConferenceRDN (FusionDirectory - Phone conference RDN)
gotoXMouseType
- 1.3.6.1.4.1.10098.1.1.1.34
  (Hardware definitions, value Type of mouse)
fdPrimaryGroupFilter
- 1.3.6.1.4.1.38414.8.14.1
  (FusionDirectory - Primary group filter)
gotoXHsync
- 1.3.6.1.4.1.10098.1.1.1.18
  (G0to - Gonicus Terminal Concept, value xHsync.)
gosaDefaultLanguage
- 1.3.6.1.4.1.10098.1.1.12.14
  (G0sa - Defines the default language for a user)
ghIdeDev
- 1.3.6.1.4.1.10098.1.1.2.4
  (Hardware definitions, value ideDev)
gotoXKbVariant
- 1.3.6.1.4.1.10098.1.1.2.27
  (G0to - Gonicus Terminal Concept, value xKbvariant.)
gotoModules
- 1.3.6.1.4.1.10098.1.1.1.32
  (G0to - Gonicus Terminal Concept, value kernel modules.)
gotoMouseButtons
- 1.3.6.1.4.1.10098.1.1.1.23
  (G0to - Gonicus Terminal Concept, value xMouseButtons.)
fdIdGenerator
- 1.3.6.1.4.1.38414.8.12.4
  (FusionDirectory - An automatic way to generate new user ids)
fdVoicemailContexts
- 1.3.6.1.4.1.38414.19.11.2
  (FusionDirectory - available voicemail contexts)
ghScsiDev
- 1.3.6.1.4.1.10098.1.1.2.5
  (Hardware definitions, value scsiDev)
goFonAdmin
- 1.3.6.1.4.1.10098.1.1.9.26
  (Admin user for fon server)
ghGfxAdapter
- 1.3.6.1.4.1.10098.1.1.2.9
  (Hardware definitions, value Grafikkarte)
fdPasswordHook
- 1.3.6.1.4.1.38414.8.13.4
  (FusionDirectory - Password hook (external command))
gotoXKbModel
- 1.3.6.1.4.1.10098.1.1.25
  (G0to - Gonicus Terminal Concept, value xKbmodel.)
gotoRootPasswd
- 1.3.6.1.4.1.10098.1.1.14
  (G0to - Gonicus Terminal Concept, value rootPasswd.)
goLogDB
- 1.3.6.1.4.1.10098.1.1.9.83
  (G0sa logging DB name)
goLogAdmin
- 1.3.6.1.4.1.10098.1.1.9.24
  (Admin user for log server)
gotoXResolution
- 1.3.6.1.4.1.10098.1.1.20
  (G0to - Gonicus Terminal Concept, value xResolution.)
gotoScannerClients
- 1.3.6.1.4.1.10098.1.1.11
  (G0to - Gonicus Terminal Concept, value scannerClients.)
gotoFontPath
- 1.3.6.1.4.1.10098.1.1.15
  (G0to - Gonicus Terminal Concept, value fontPath.)
goFonPassword
- 1.3.6.1.4.1.10098.1.1.9.27
  (Admin password for fon server)

Deprecated objectClasses:
goNfsServer
- 1.3.6.1.4.1.10098.1.2.1.19
  (NFS server description)
goCupsServer
- 1.3.6.1.4.1.10098.1.2.1.23
  (CUPS server description)
gosaCacheEntry
- 1.3.6.1.4.1.10098.1.2.1.19.3
  (G0sa - Class for G0sa caching)
The **check-deprecated** option will output a list of dn using old attributes and objectClasses of they are present in your ldap server.

```
fusiondirectory-setup --check-deprecated
List LDAP entries using deprecated attributes or objectclasses
There are no entries in the LDAP using obsolete attributes
There are no entries in the LDAP using obsolete classes
```

The **ldif-deprecated** option will output an ldif file on the console that you can use with ldapmodify to clean you ldap server from old attributes.

```
fusiondirectory-setup --ldif-deprecated > remove_deprecated.ldif
```

If they are old objectClasses it will warn you and you will have to remove them by hand, they have been specified at the **check-deprecated** step.

Please read it carefully before applying.
Migrate FusionDirectory from 1.0.13 to 1.0.14

Ubuntu 12.0.4 TLS users

⚠️ Since 1.0.9.2 FusionDirectory need the php-cas library for CAS server support. This library can normally found in universe in the Ubuntu repositories.

In case you did not find it, grab the deb from here and install it

http://packages.ubuntu.com/trusty/all/php-cas/download

and select your preferred mirror

Upgrade FusionDirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

```
apt-get install fusiondirectory
```

Upgrade FusionDirectory schema package too.

```
apt-get install fusiondirectory-schema
```

Plugin deprecated

The game plugin as been removed in this version

Upgrade of LDAP directory

if your are using the community plugin you have to update its schema

```
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/community-fd.schema
```

if your are using the systems plugin you have to update its schema

```
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/systems-fd.schema
```

Remove old schema from /etc/ldap/schema/fusiondirectory
The old schema are not automatically removed from /etc/ldap/schema/fusiondirectory. You can safely remove `recovery-fd.schema` and `asterisk-fd.conf` if they still exist.

### Check for deprecated attributes and objectClasses in your LDAP

The `list-deprecated` option of `fusiondirectory-setup` show deprecated attributes and objectClasses for FusionDirectory.

```
fusiondirectory-setup --list-deprecated
List deprecated attributes and objectclasses
Depreciated attributes:
- gotoFilesystem                 (G0to - Gonicus Terminal Concept, value filesystem.) - 1.3.6.1.4.1.10098.1.1.1.6
- gotoFloppyEnable               (G0to - Gonicus Terminal Concept, value floppyEnable.) - 1.3.6.1.4.1.10098.1.1.1.7
- gotoSysStatus                  (Keeps current system status - info shown in G0sa) - 1.3.6.1.4.1.10098.1.1.2.11
- gotoXColordepth                (G0to - Gonicus Terminal Concept, value xColordepth.) - 1.3.6.1.4.1.10098.1.1.1.21
- gotoHardwareChecksum           (G0to - quick way to see if something has changed) - 1.3.6.1.4.1.10098.1.1.2.12
- goFaxPassword                  (Admin password for fax server) - 1.3.6.1.4.1.10098.1.1.9.23
- gotoNtpServer                  (G0to - Gonicus Terminal Concept, value ntpServer.) - 1.3.6.1.4.1.10098.1.1.1.2
- gotoXDriver                    (G0to - Gonicus Terminal Concept, value xDriver.) - 1.3.6.1.4.1.10098.1.1.1.28
- fdSnapshotAdminDn              (FusionDirectory - Snaphost admin dn) - 1.3.6.1.4.1.38414.8.17.4
- fdPersonalTitleInDN            (FusionDirectory - Personal title in dn) - 1.3.6.1.4.1.38414.8.12.5
- gotoXMouseport                 (G0to - Gonicus Terminal Concept, value xMouseport.) - 1.3.6.1.4.1.10098.1.1.1.22
- gotoAdaptPath                  (G0to - Gonicus Terminal Concept, value adaptpath.) - 1.3.6.1.4.1.10098.1.1.1.33
- goFCountryCode                 (Store country code) - 1.3.6.1.4.1.10098.1.1.9.29
- gotoSoundModule                (G0to - Gonicus Terminal Concept, value sound Modules.) - 1.3.6.1.4.1.10098.1.1.1.29
- gotoXKbLayout                  (G0to - Gonicus Terminal Concept, value xKblayout.) - 1.3.6.1.4.1.10098.1.1.1.26
- gotoProfileFlags               (G0to - Flags for Profile handling - C is for caching) - 1.3.6.1.4.1.10098.1.1.1.11.7
- ghSoundAdapter                 (Hardware definitions, value soundAdapter) - 1.3.6.1.4.1.10098.1.1.2.7
- gotoScannerModel               (G0to - Gonicus Terminal Concept, value scannerModel.) - 1.3.6.1.4.1.10098.1.1.1.40
- gotoScannerEnable              (G0to - Gonicus Terminal Concept, value scannerEnable.) - 1.3.6.1.4.1.10098.1.1.1.10
- gosaSubtreeACL                 (G0sa - ACL entry)
```
- 1.3.6.1.4.1.10098.1.1.12.1
  ghUsbSupport (Hardware definitions, value usbSupport)
- 1.3.6.1.4.1.10098.1.1.2.3
gotoLpdEnable (Goto - Gonicus Terminal Concept, value lpdEnable.)
  - 1.3.6.1.4.1.10098.1.1.1.9
gotoProfileQuota (Goto - save quota for home)
- 1.3.6.1.4.1.10098.1.1.11.15
gotoScannerBackend (Goto - Gonicus Terminal Concept, value scannerBackend.)
  - 1.3.6.1.4.1.10098.1.1.1.39
goSyslogSection (What sections wants the server for its syslog service? i.e. *.*)
  - 1.3.6.1.4.1.10098.1.1.9.9
  for generating account RDNs)
  goFaxAdmin (Admin principal for fax server)
- 1.3.6.1.4.1.10098.1.1.9.22
goLogDriver (FD logging MDB2 driver name)
- 1.3.6.1.4.1.10098.1.1.9.84
ghNetNic (Hardware definitions, value Network Device)
- 1.3.6.1.4.1.10098.1.1.2.8
  academicTitle (Field to represent the academic title)
- 1.3.6.1.4.1.10098.1.1.6.2
  fdPhoneMacroRDN (FusionDirectory - Phone macro RDN)
- 1.3.6.1.4.1.38414.19.10.2
  gosalLoginRestriction (GOsa - Multivalue attribute to carry a number of allowed ips/subnets)
  - 1.3.6.1.4.1.10098.1.1.12.46
  gotoLpdServer (Goto - Gonicus Terminal Concept, value lpdServer.)
  - 1.3.6.1.4.1.10098.1.1.1.4
  ghCpuType (Hardware definitions, value cpuType)
- 1.3.6.1.4.1.10098.1.1.1.2.1
goMonitor (Goto - Gonicus Terminal Concept, value xMonitor.)
  - 1.3.6.1.4.1.10098.1.1.1.17
  fdRfc2307bis (FusionDirectory - rfc2307bis)
  - 1.3.6.1.4.1.38414.8.10.1
goVSync (Goto - Gonicus Terminal Concept, value xSync.)
  - 1.3.6.1.4.1.10098.1.1.19
  fdSipContexts (FusionDirectory - available sip contexts)
  - 1.3.6.1.4.1.38414.19.11.1
goShare (Goto - specifies a share)
  - 1.3.6.1.4.1.10098.1.1.11.9
  fdCopyPaste (FusionDirectory - (de)Activate copy/paste)
  - 1.3.6.1.4.1.38414.8.14.5
goLogPassword (Admin password for log server)
- 1.3.6.1.4.1.10098.1.1.9.25
gothromEnable (Goto - Gonicus Terminal Concept, value cdromEnable.)
  - 1.3.6.1.4.1.10098.1.1.1.8
goProfileServer (Goto - specifies the profile server)
  - 1.3.6.1.4.1.10098.1.1.11.18
  fdSnapshotAdminPassword (FusionDirectory - Snaphost admin password)
  - 1.3.6.1.4.1.38414.8.17.5
  ghMemSize (Hardware definitions, value memSize)
  - 1.3.6.1.4.1.10098.1.1.2.2
fdSnapshotURI
- 1.3.6.1.4.1.38414.8.17.3

gotoAutoFs
- 1.3.6.1.4.1.10098.1.1.131

goFonAreaCode
- 1.3.6.1.4.1.10098.1.1.28

gInventoryNumber
- 1.3.6.1.4.1.10098.1.2.2.10

fdPhoneConferenceRDN
- 1.3.6.1.4.1.38414.19.10.3

gotoXMouseType
- 1.3.6.1.4.1.10098.1.1.1.34

fdPrimaryGroupFilter
- 1.3.6.1.4.1.38414.8.14.1

gotoXHsync
- 1.3.6.1.4.1.10098.1.1.1.18

gosaDefaultLanguage
- 1.3.6.1.4.1.10098.1.1.12.14

ghIdeDev
- 1.3.6.1.4.1.10098.1.1.2.4

gotoXKbVariant
- 1.3.6.1.4.1.10098.1.1.1.27

gotoModules
- 1.3.6.1.4.1.10098.1.1.1.32

fdPasswordHook
- 1.3.6.1.4.1.38414.8.13.4

fdIdGenerator
- 1.3.6.1.4.1.38414.8.12.4

gfsoDefaultLanguage
- 1.3.6.1.4.1.10098.1.1.12.14

ghScsiDev
- 1.3.6.1.4.1.38414.19.11.2

gfsoAdmin
- 1.3.6.1.4.1.10098.1.1.9.25

gfxgfs
- 1.3.6.1.4.1.10098.1.1.1.12.9

fdPasswordHook
- 1.3.6.1.4.1.38414.8.13.4

gotoXKbModel
- 1.3.6.1.4.1.10098.1.1.1.25

gotoRootPasswd
- 1.3.6.1.4.1.10098.1.1.1.14

goLogDB
- 1.3.6.1.4.1.10098.1.1.1.9.83

goLogAdmin
- 1.3.6.1.4.1.10098.1.1.1.1.9.24

gotoXResolution
- 1.3.6.1.4.1.10098.1.1.1.20

gotoScannerClients
- 1.3.6.1.4.1.10098.1.1.1.11

gotoFontPath
- 1.3.6.1.4.1.10098.1.1.1.11
fontPath.)                    - 1.3.6.1.4.1.10098.1.1.1.5
  goFonPassword                            (Admin password for fon server)
- 1.3.6.1.4.1.10098.1.1.9.27
Deprecation objectClasses:
goNfsServer                                (NFS server description)
- 1.3.6.1.4.1.10098.1.1.1.10
  goCupsServer                               (CUPS server description)
- 1.3.6.1.4.1.10098.1.1.1.14
  gosaCacheEntry                            (G0sa - Class for G0sa caching)
- 1.3.6.1.4.1.10098.1.1.1.15
  gosaObject                                (G0sa - Class for G0sa settings)
- 1.3.6.1.4.1.10098.1.1.1.16
  gFaxServer                                (Fax server description)
- 1.3.6.1.4.1.10098.1.1.1.17
  goFonServer                               (Fon server description)
- 1.3.6.1.4.1.10098.1.1.1.18
  gosaUserTemplate                          (G0sa - Class for G0sa User Templates)
- 1.3.6.1.4.1.10098.1.1.1.19
  gAccount                                  (G0sa - Class for G0sa Accounts)
- 1.3.6.1.4.1.10098.1.1.1.20
  gLogDBServer                              (Log DB server description)
- 1.3.6.1.4.1.10098.1.1.1.21
  goSyslogServer                            (Syslog server description)
- 1.3.6.1.4.1.10098.1.1.1.22
  gNtpServer                                (Time server description)
- 1.3.6.1.4.1.10098.1.1.1.23

The **check-deprecated** option will output a list of DN using old attributes and objectClasses of they are present in your LDAP server

```
fusiondirectory-config --check-deprecated
List LDAP entries using deprecated attributes or objectclasses
There are no entries in the LDAP using obsolete attributes
There are no entries in the LDAP using obsolete classes
```

The **ldif-deprecated** option will output an LDIF file on the console that you can use with ldapmodify to clean you LDAP server from old attributes.

```
fusiondirectory-config --ldif-deprecated > remove_deprecated.ldif
```

If they are old objectClasses it will warn you and you will have to remove them by hand, they have been specified at the **check-deprecated** step.

Please read it carefully before applying

**New Breezy Theme**

In this version by default there is a new more modern theme called breezy. To active it completely go to the configuration plugin, click edit and in the “Look and feel” section select breezy
Enjoy :)

From: https://documentation.fusiondirectory.org/ - FusionDirectory Documentation

Permanent link: https://documentation.fusiondirectory.org/en/documentation/admin_installation_migration_1.0.14

Last update: 2016/07/09 17:15
Migrate FusionDirectory from 1.0.14 to 1.0.15

Ubuntu 12.0.4 TLS users

⚠️ Since 1.0.9.2 FusionDirectory need the php-cas library for CAS server support. This library can normally found in universe in the Ubuntu repositories.

In case you did not find it, grab the deb from here and install it

http://packages.ubuntu.com/trusty/all/php-cas/download

and select your preferred mirror

Upgrade FusionDirectory first

Upgrade FusionDirectory core package before other ones to avoid dependencies errors:

```
apt-get install fusiondirectory
```

Upgrade FusionDirectory schema package too.

```
apt-get install fusiondirectory-schema
```

Plugin deprecated

The apache2 plugin as been removed in this version

```
apt-get remove fusiondirectory-plugin-apache2
```

```
apt-get remove fusiondirectory-plugin-apache2-schema
```

After removing you apache2 data from the LDAP, you may empty the schema

```
fusiondirectory-insert-schema -e mod_vhost_ldap
```

Upgrade of LDAP directory

Upgrade the core template schema

```
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/core-fd-conf.schema
```
fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/core-fd.schema

if your are using the systems plugin you have to update its schema

fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/systems-fd.schema

if your are using the personal plugin you have to update its schema

fusiondirectory-insert-schema -m /etc/ldap/schema/fusiondirectory/personal-fd.schema

Remove old schema from /etc/ldap/schema/fusiondirectory

The old schema are not automatically removed from /etc/ldap/schema/fusiondirectory. You can safely remove recovery-fd.schema and asterisk-fd.conf if they still exist

Check for deprecated attributes and objectClasses in your LDAP

The list-deprecated option of fusiondirectory-setup show deprecated attributes and objectClasses for FusionDirectory

fusiondirectory-setup --list-deprecated
List deprecated attributes and objectclasses
Deprecated attributes:
  gotoXKbVariant xKbvariant.)           (G0to - Gonicus Terminal Concept, value 1.3.6.1.4.1.10098.1.1.1.27
  ghGfxAdapter - 1.3.6.1.4.1.10098.1.1.2.9
  gotoModules kernel modules.)         (G0to - Gonicus Terminal Concept, value 1.3.6.1.4.1.10098.1.1.32
  gotoHardwareChecksum changed)       (G0to - quick way to see if something has 1.3.6.1.4.1.10098.1.1.2.12
  gotoPrinterPPD - 1.3.6.1.4.1.10098.1.1.11.6
  fdAsteriskDriver - 1.3.6.1.4.1.10098.1.1.9.30
  fdRfc2307bis - 1.3.6.1.4.1.38414.8.10.1
  goFonAreaCode - 1.3.6.1.4.1.38414.8.10.28
  gotoGroupAdminPrinter - 1.3.6.1.4.1.10098.1.1.11.17
  gotoXVsync xVsync.)                  (G0to - Gonicus Terminal Concept, value 1.3.6.1.4.1.10098.1.1.1.19
  printerWindowsDriverName              (Windows name of the printer driver) 1.3.6.1.4.1.38414.6.10.3
printerWindowsDriverDir (Path to directory that contains windows drivers for this printer) - 1.3.6.1.4.1.38414.6.10.2
fdSipContexts (FusionDirectory - available sip contexts)
- 1.3.6.1.4.1.38414.19.11.1
fdPhoneConferenceRDN (FusionDirectory - Phone conference RDN)
- 1.3.6.1.4.1.38414.19.10.3
gfoFonPassword (Admin password for fon server)
- 1.3.6.1.4.1.10098.1.1.9.27
fdSnapshotURI (FusionDirectory - Snaphost URI)
- 1.3.6.1.4.1.38414.8.17.3
fdSnapshotAdminPassword (FusionDirectory - Snaphost admin password)
- 1.3.6.1.4.1.38414.8.17.5
gotoAdaptPath (G0to - Gonicus Terminal Concept, value adaptpath.) - 1.3.6.1.4.1.10098.1.1.1.33
gMemSize (Hardware definitions, value memSize)
- 1.3.6.1.4.1.10098.1.1.2.2
gotoCdromEnable (G0to - Gonicus Terminal Concept, value cdromEnable.) - 1.3.6.1.4.1.10098.1.1.1.8
ghInventoryNumber (Unique number for inclusion in an inventory)
- 1.3.6.1.4.1.10098.1.1.2.10
avArchiveMaxRecursion (Maximum number of archive nestings)
- 1.3.6.1.4.1.10098.1.1.9.73
goLogAdmin (Admin user for log server)
- 1.3.6.1.4.1.10098.1.1.9.24
gotoXMouseport (G0to - Gonicus Terminal Concept, value xMouseport.) - 1.3.6.1.4.1.10098.1.1.1.22
gotoXMouseButtons (G0to - Gonicus Terminal Concept, value xMouseButtons.) - 1.3.6.1.4.1.10098.1.1.1.23
gotoXKbLayout (G0to - Gonicus Terminal Concept, value xKblayout.) - 1.3.6.1.4.1.10098.1.1.1.26
gdCopyPaste (FusionDirectory - (de)Activate copy/paste)
- 1.3.6.1.4.1.38414.8.14.5
gotoScannerBackend (G0to - Gonicus Terminal Concept, value scannerBackend.) - 1.3.6.1.4.1.10098.1.1.1.39
printerWindowsInfFile (Path to windows inf file for this printer)
- 1.3.6.1.4.1.38414.6.10.1
avArchiveMaxCompressionRatio (Maximum compression ratio)
- 1.3.6.1.4.1.10098.1.1.9.74
gdPhoneMacroRDN (FusionDirectory - Phone macro RDN)
- 1.3.6.1.4.1.38414.19.10.2
avMaxDirectoryRecursions (Number of recursions done with directories)
- 1.3.6.1.4.1.10098.1.1.9.69
goUserPrinter (G0to - keeps printers shown for this user)
- 1.3.6.1.4.1.10098.1.1.11.12
gdPasswordHook (FusionDirectory - Password hook (external command)) - 1.3.6.1.4.1.38414.8.13.4
gotoXColordepth (G0to - Gonicus Terminal Concept, value xColordepth.) - 1.3.6.1.4.1.10098.1.1.1.21
gotoXHsync (G0to - Gonicus Terminal Concept, value xHsync.) - 1.3.6.1.4.1.10098.1.1.1.18
gdPersonalTitleInDN (FusionDirectory - Personal title in dn)
gotoXMouseType (Hardware definitions, value Type of mouse)
gotoNtpServer (Goto - Gonicus Terminal Concept, value ntpServer.)
goLogDriver (FD logging MDB2 driver name)
fdPrimaryGroupFilter (FusionDirectory - Primary group filter)
goLogPassword (Admin password for log server)
gotoGroupPrinter (Goto - keeps printers shown for this user)
fdMailMethod                   (FusionDirectory - Mail method)
-gotoFilesystem (Goto - Gonicus Terminal Concept, value filesystem.) - 1.3.6.1.4.1.10098.1.1.1.6
ghSoundAdapter (Hardware definitions, value soundAdapter)
-avArchiveMaxFileSize (Maximum archive file size)
-avChecksPerDay (Update checks per day)
-gotoScannerEnable (Goto - Gonicus Terminal Concept, value scannerEnable.) - 1.3.6.1.4.1.10098.1.1.1.10
ghScsiDev (Hardware definitions, value scsiDev)
-gofaxPassword (Admin password for fax server)
-gosyslogSection (What sections wants the server for its syslog service? i.e. *.*) - 1.3.6.1.4.1.10098.1.1.9.9
-gotoLpdServer (Goto - Gonicus Terminal Concept, value lpdServer.) - 1.3.6.1.4.1.10098.1.1.1.4
avUser (Username to run antivirus with)
-gotoProfileQuota (Goto - save quota for home)
-fdidGenerator (FusionDirectory - An automatic way to generate new user ids) - 1.3.6.1.4.1.38414.8.12.4
avFlags (Special flags for the antivirus scan engine) - 1.3.6.1.4.1.10098.1.1.9.71
-gotoScannerClients (Goto - Gonicus Terminal Concept, value scannerClients.) - 1.3.6.1.4.1.10098.1.1.1.11
gotoXMonitor (Goto - Gonicus Terminal Concept, value xMonitor.) - 1.3.6.1.4.1.10098.1.1.1.17
ghNetNic (Hardware definitions, value Network Device)
-gofonAdmin (Admin user for fon server)
-gotoShare (Goto - specifies a share)
-ghIdedev (Hardware definitions, value ideDev)
-fdSnapshotAdminDn (FusionDirectory - Snaphost admin dn)
-gofaxadmin (Admin principal for fax server)
-ghcputype (Hardware definitions, value cpuType)
-fdVoicemailcontexts (FusionDirectory - available voicemail contexts) - 1.3.6.1.4.1.38414.19.11.2
-gotoprofileflags (Goto - Flags for Profile handling - C is for caching) - 1.3.6.1.4.1.10098.1.1.11.7
gotouseradminprinter (Goto - keeps printers we are admin for)
- 1.3.6.1.4.1.10098.1.1.11.13
  Deprecated objectClasses:
  - goCupsServer                   (CUPS server description)
  - goLogDBServer                  (Log DB server description)
  - goFaxServer                    (Fax server description)
  - goNtpServer                    (Time server description)
  - goSyslogServer                 (Syslog server description)
  - goNfsServer                    (NFS server description)
  - goFonServer                    (Fon server description)
  - gosaUserTemplate               (GOsa - Class for GOsa User Templates)
  - goVirusServer                  (Virus server definition)

The **check-deprecated** option will output a list of dn using old attributes and objectClasses of they are present in your ldap server

```
fusiondirectory-setup --check-deprecated
List LDAP entries using deprecated attributes or objectclasses
There are no entries in the LDAP using obsolete attributes
There are no entries in the LDAP using obsolete classes
```

If you see **the obsolete object class gotoPrinter** you must run the next command and answer yes

```
fusiondirectory-setup --migrate-printers
```

The **ldif-deprecated** option will output an ldif file on the console that you can use with ldapmodify to clean you ldap server from old attributes.

```
fusiondirectory-setup --ldif-deprecated > remove_deprecated.ldif
```

If they are old objectClasses it will warn you and you will have to remove them by hand, they have been specified at the **check-deprecated** step.

Please read it carefully before applying 🔄

**Hook**

You must modify your hook so that they don't use quotes. The attributes are now automatically quotes and escape.
New Breezy Theme

In this version by default there is a new more modern theme called breezy. To activate it completely go to the configuration plugin, click edit and in the “Look and feel” section select breezy.

Enjoy :)

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Permanent link: https://documentation.fusiondirectory.org/en/documentation/admin_installation_migration_1.0.15
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