

# Directory Installation

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## Prerequisites

While CManage Directory is designed to work in a LAMP environment, the only required component is PHP. Other modern operating systems and web servers should work. Configuration of these prerequisites is generally beyond the scope of this documentation.

## PHP

PHP 5.2.8 or later is required, with LDAP support enabled (built with `--with-ldap`).

## Web Server Setup

- The web server should be configured to deliver content over HTTPS (via TLS/SSL).
- Make sure the server is capable of rendering PHP. On Linux systems most often the installation of PHP enables the `php5_module` but you should confirm it has been enabled. The configuration of Apache to use the module and parse `.php` files as PHP is also often done when PHP is installed but you should confirm that your Apache configuration contains lines similar to these:

```
<IfModule mod_php5.c>
  <FilesMatch "\.ph(p|tml)$">
    SetHandler application/x-httpd-php
  </FilesMatch>
  <FilesMatch "\.phps$">
    SetHandler application/x-httpd-php-source
  </FilesMatch>
</IfModule>
```

You may wish to restrict the configuration for parsing of `.php` files to the CManage Directory directory by embedding the `<FilesMatch>` element inside of an appropriate `<Directory>` element. See the [Apache httpd documentation](#).

- Configure the directory holding CManage Directory to allow symlinks, overrides, and accept `index.php`. For Apache, something like the following should work:

```
<Directory "/path/to/docroot/directory">
  Options Indexes FollowSymLinks
  DirectoryIndex index.php
  AllowOverride All
  Order allow,deny
  Allow from all
</Directory>
```

- Make sure that the `mod_rewrite` Apache module is installed **and enabled**.

## Checkout Source

Checkout the CManage Directory source files somewhere into the file system. The location you put the files does not have to be the location from where the files are served by the web server. Create a symlink from the tag to `directory-source`:

```
$ svn co http://anonsvn.internet2.edu/svn/comange/directory/tags/0.1
$ ln -s 0.1 directory-source
```

## Deploy

Deploy the COnanage Directory directory wherever you like. Note that the user that the web server runs as needs to be able to read all the files.

Configure your web server to deliver the directory at a suitable URL such as <https://some-vo.org/directory>. A simple strategy to accomplish this when running under the Apache web server is to create a symlink in the DocumentRoot named `directory` that points to the directory `.../directory-source/app/webroot`:

```
$ cd /var/www
$ ln -s /path/to/directory-source/app/webroot directory
```

You should verify that the web server will not deliver unprocessed files, especially configuration files such as the LDAP configuration file (ie: <https://some-vo.org/directory/app/Config/ldap.php>). By default, these files will not be delivered.

You'll most likely want to move the `directory-source/app/tmp` directory, since it is bad practice to have writable directories on the file system delivering web content. A reasonable alternative would be `/var/cache/directory`. The easiest way to do this on a Unix-like system is to create a symlink to the new directory.

```
$ cd directory-source/app
$ sudo cp -r tmp /var/cache/directory
$ sudo chown -R $HTTPUSER /var/cache/directory
$ sudo chmod 700 /var/cache/directory
$ mv tmp tmp.not
$ ln -s /var/cache/directory tmp
```

In order to integrate COnanage Directory with your authentication system, configure your Web server to protect the directory `directory/app/webroot/auth/login`. For example, under Apache your configuration may look something like

```
DocumentRoot /var/www
<Directory /var/www/directory/auth/login>
  AuthType shibboleth
  ShibRequestSetting requireSession 1
  require valid-user
</Directory>
```

## LDAP Server Setup

Edit `directory/app/Config/ldap.php` to have settings suitable for your LDAP server. Contact your LDAP administrator for the appropriate settings.

## Database Server Setup

COnanage Directory does not use a database server.

## Testing

To test open a web browser and browse to <https://yourserver.org/directory> (or wherever you mounted the directory for your web server). You should be able to search for entries from your LDAP server.

## Troubleshooting

- The directory `directory-source/` contains a `.htaccess` with necessary `mod_rewrite` directives. Not all Apache configurations by default allow configuration options within `.htaccess` files. Be sure that your Apache configuration has the necessary `AllowOverride` configuration to allow that `.htaccess` file to be processed (this is not the default on Debian Squeeze and other Linux distributions).