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71
contributors

2.911
pull requests

21.171
commits

re

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Open Source (https://www.openproject.org/open-source/)
Manual installation (https://www.openproject.org/open-source/manual-installation/)
   Manual Installation OP 4.1

(https://www.openproject.org/)

Apache on Debian 7.7 or Ubuntu 14.04 LTS

This tutorial helps you to deploy OpenProject 4.1. Please, aware that:

1. This guide requires that you have a clean **Debian 7.7 x64** or **Ubuntu 14.04 x64** installation with administrative rights. We have tested the installation guide on a Debian minimal netinstall image and on an Ubuntu Server image, but it should work on any derivative.
2. OpenProject will be installed with a MySQL database (the guide should work analogous with PostgreSQL).
3. OpenProject will be served in a production environment with Apache (this guide should work analogous with other servers, like nginx and others)

In this guide, we will install **OpenProject 4.1** with a **MySQL** database. Openproject will be served with the **Apache** web server. When your server needs to reboot, OpenProject should start automatically with your server.

Note: We have highlighted commands to execute like this

```
[user@host] command
```

Where the `user` is the operating system user the command is executed with. The `host` is either `debian` (when the command is Debian-specific), `ubuntu` (when the command is Ubuntu-specific), or `all` (when the command shall be executed on either operating system).

If you find any bugs or you have any recommendations for improving this tutorial, please, feel free to create a pull request against this guide.

(https://www.openproject.org/)

/operation_guides/manual /installation-guide.md#prepare-your-environment)Prepare Your Environment

Install tools needed to compile Ruby and run OpenProject:

(https://github.com /opf/openproject/blob/release /4.1/doc/operation_guides /manual/installation-guide.md#only-on-debian)Only on Debian

```
[root@debian] apt-get update
[root@debian] apt-get install git curl b
uild-essential zlib1g-dev libyaml-dev li
bssl-dev libmysqlclient-dev libpq-dev me
mcached libffi5
```

DeclareVariables

RootFile

(https://github.com /opf/openproject/blob/release /4.1/doc/operation_guides /manual/installation-guide.md#only-on-ubuntu)Only on Ubuntu

```
[root@ubuntu] apt-get update
[root@ubuntu] apt-get install git curl z
lib1g-dev build-essential libssl-dev lib
readline-dev libyaml-dev libmysqlclient-
dev libpq-dev libxml2-dev libxslt1-dev l
ibcurl4-openssl-dev python-software-prop
erties memcached libgdbm-dev libncurses5
-dev automake libtool bison libffi-dev
```

DeclareVariables

RootFile

(https://github.com /opf/openproject/blob/release /4.1/doc/operation_guides /manual/installation-

(https://www.openproject.org/)

```
[root@all] groupadd openproject
[root@all] useradd --create-home --gid o
penproject openproject
[root@all] passwd openproject (enter des
ired password)
```

DeclareVariables

　RootFile

(https://github.com /opf/openproject /blob/release/4.1/doc /operation_guides/manual /installation- guide.md#install- database-mysql- packages)Install Database (MySQL) Packages

During installation, you have to enter a password for the mysql root-user.

```
[root@all] apt-get install mysql-server
mysql-client
```

DeclareVariables

　RootFile

As a reference, we have installed the following MySQL version:

```
[root@all] mysql --version
            mysql  Ver 14.14 Distrib 5
.5.40, for debian-linux-gnu (x86_64) usi
ng readline 6.3
```

Create the OpenProject MySQL-user and database:

DeclareVariables

　RootFile

```
[root@all] mysql -u root -p
```

You may replace the string ` "openproject" ` with the desired username and database-name. The password ` "my_password" ` should definitely be changed.

(https://www.openproject.org/)

```
mysql> GRANT ALL PRIVILEGES ON openproje
ct.* TO 'openproject'@'localhost';
mysql> \q
```

DeclareVariables

RootFile

(https://github.com/opf/openproject/blob/release/4.1/doc/operation_guides/manual/installation-guide.md#install-nodejs)Install Node.js

We will install the latest 0.10.x version of Node.js via nodeenv (https://pypi.pythn.org/pypi/nodeenv):

```
[root@all] apt-get install python python-pip
[root@all] pip install nodeenv
```

DeclareVariables

RootFile

(https://github.com/opf/openproject/blob/release/4.1/doc/operation_guides/manual/installation-guide.md#install-ruby)Install Ruby

Switch to the dedicated OpenProject-user (user `openproject` in our case):

```
[root@all] su openproject -c "bash -l"
```

Switch to the user's home directory ...

```
[openproject@all] cd ~
```

... and install RVM (Ruby Version Manager)

```
[openproject@all] \curl -sSL https://get.rvm.io | bash -s stable
```

DeclareVariables

RootFile

(https://www.openproject.org/)

```
[openproject@all] gpg --keyserver hkp://
keys.gnupg.net --recv-keys D39DC0E3
```

DeclareVariables

Then try to download RVM again and
continue the installation with:

RootFile

```
[openproject@all] source $HOME/.rvm/scri
pts/rvm
[openproject@all] rvm autolibs disable
[openproject@all] rvm install 2.1.5
[openproject@all] rvm use --default 2.1.
5
[openproject@all] gem install bundler
```

As a reference, we have installed the
following version of bundler:

DeclareVariables

```
[openproject@all] bundle --version
                 Bundler version 1.7.4
```

RootFile

(https://github.com /opf/openproject /blob/release/4.1/doc /operation_guides/manual /installation- guide.md#activate- nodejs)Activate Node.js

```
[openproject@all] cd ~
[openproject@all] nodeenv nodeenv
[openproject@all] source ./nodeenv/bin/a
ctivate
[openproject@all] npm -g install bower
```

DeclareVariables

RootFile

As a reference, the following Node.js and
NPM versions have been installed on our
system:

(https://www.openproject.org/)

```
[openproject@all] bower --version
                  1.3.12
```

(https://github.com/opf/openproject/blob/release/4.1/doc/operation_guides/manual/installation-guide.md#install-openproject)Install OpenProject

```
[openproject@all] cd ~
[openproject@all] git clone https://github.com/opf/openproject.git
[openproject@all] cd openproject
[openproject@all] git checkout v4.1.0 # please use actual current stable version v4.1.X
[openproject@all] bundle install
[openproject@all] npm install
```

DeclareVariables
RootFile

(https://github.com/opf/openproject/blob/release/4.1/doc/operation_guides/manual/installation-guide.md#configure-openproject)Configure OpenProject

Create and configure the database configuration file in `config/database.yml` (relative to the openproject-directory).

```
[openproject@all] cp config/database.yml.example config/database.yml
```

DeclareVariables
RootFile

Now edit the `config/database.yml` file and insert your database credentials. It should look like this (just with your database name,

(https://www.openproject.org/)

```
    database: openproject
    host: localhost
    username: openproject
    password: openproject
    encoding: utf8

 development:
    adapter: mysql2
    database: openproject
    host: localhost
    username: openproject
    password: openproject
    encoding: utf8
```

InsertIntoFile

Configure email notifications (using a gmail account as an example) by creating configuration.yml in config directory.

```
[openproject@all] cp config/configuratio
n.yml.example config/configuration.yml
```

**DeclareVariables
RootFile**

Now, edit the configuration.yml file as you like.

```
production:                          #ma
in level
    email_delivery_method: :smtp        #se
ttings for the production environment
    smtp_address: smtp.gmail.com
    smtp_port: 587
    smtp_domain: smtp.gmail.com
    smtp_user_name: ***@gmail.com
    smtp_password: ****
    smtp_enable_starttls_auto: true
    smtp_authentication: plain
```

InsertIntoFile

Add this line into configuration.yml file at the of of file for better performance of OpenProject:

```
rails_cache_store: :memcache
```

changefilelines

NOTE: You should validate your .yml-files, for example with http://www.yamllint.com/ (http://www.yamllint.com/). Both, the database.yml and configuration.yml file are sensitive to whitespace. It is pretty easy to

(https://www.openproject.org/)

(https://github.com /opf/openproject /blob/release/4.1/doc /operation_guides/manual /installation- guide.md#finish- the-installation- of-openproject)Finish the Installation of OpenProject

```
[openproject@all] cd ~/openproject
[openproject@all] bundle exec rake db:create:all
[openproject@all] bundle exec rake generate_secret_token
[openproject@all] RAILS_ENV="production" bundle exec rake db:migrate
[openproject@all] RAILS_ENV="production" bundle exec rake db:seed
[openproject@all] RAILS_ENV="production" bundle exec rake assets:precompile
```

DeclareVariables
RootFile

(https://github.com /opf/openproject /blob/release/4.1/doc /operation_guides/manual /installation- guide.md#serve- openproject-with-apache- and-passenger)Serve OpenProject with Apache and Passenger

OpenProject will be served by the Rails application server "Passenger", and the apache webserver. We set up the system in a way, that automatically starts OpenProject with the operating system.

(https://www.openproject.org/)

/manual/installation-guide.md#only-on-debian-1)Only on Debian

First, exit the current bash session with the `openproject` user, so that we are again in a root shell. Then, we prepare apache and passenger:

```
[openproject@debian] exit
[root@debian] apt-get install apache2 libcurl4-gnutls-dev apache2-threaded-dev libapr1-dev libaprutil1-dev
[root@debian] chmod o+x "/home/openproject"
```

DeclareVariables RootFile

Now, the Passenger gem is installed and integrated into apache.

```
[root@debian] su - openproject -c "bash -l"
[openproject@debian] cd ~/openproject
[openproject@debian] gem install passenger
[openproject@debian] passenger-install-apache2-module
```

DeclareVariables RootFile

Follow the instructions passenger provides. The passenger installer will ask you the question in "Which languages are you interested in?". We are interested only in ruby.

As told by the installer, add this lines to `/etc/apache2/apache2.conf` . But before copy&pasting the following lines, check if the content (especially the version numbers!) is the same as the `passenger-install-apache2-module` installer said. When you're in doubt, do what passenger tells you.

(https://www.openproject.org/)

```
<IfModule mod_passenger.c>
    PassengerRoot /home/openproject/.rvm/g
ems/ruby-2.1.5/gems/passenger-4.0.53
    PassengerDefaultRuby /home/openproject
/.rvm/gems/ruby-2.1.5/wrappers/ruby
</IfModule>
```

InsertIntoFile

As the root user, create the file
/etc/apache2/conf.d/openproject.conf   with
the following contents:

```
<VirtualHost *:80>
    ServerName www.myopenprojectsite.com
    # !!! Be sure to point DocumentRoot t
o 'public'!
    DocumentRoot /home/openproject/openpr
oject/public
    <Directory /home/openproject/openproj
ect/public>
        # This relaxes Apache security set
tings.
        AllowOverride all
        # MultiViews must be turned off.
        Options -MultiViews
        # Uncomment this if you're on Apac
he >= 2.4:
        #Require all granted
    </Directory>
</VirtualHost>
```

ChangeFileRegex

(https://github.com
/opf/openproject/blob/release
/4.1/doc/operation_guides
/manual/installation-
guide.md#only-on-ubuntu-
1)Only on Ubuntu

First, exit the current bash session with the
openproject   user, so that we are again in a
root shell. Then, we prepare apache and
passenger:

(https://www.openproject.org/)

```
[root@ubuntu] chmod o+x "/home/openproje
ct"
```

As a reference, the following version of apache was installed:

```
[root@ubuntu] apache --version
```

Now, the Passenger gem is installed and integrated into apache.

```
[root@ubuntu] su - openproject -c "bash
-l"
[openproject@ubuntu] cd ~/openproject
[openproject@ubuntu] gem install passeng
er
[openproject@ubuntu] passenger-install-a
pache2-module
```

Follow the instructions passenger provides. The passenger installer will ask you the question in "Which languages are you interested in?". We are interested only in ruby.

The passenger installer tells us to edit the apache config files. To do this, continue as the root user:

```
[openproject@ubuntu] exit
```

As told by the installer, create the file /etc/apache2/mods-available/passenger.load and add the following line. But before copy&pasting the following lines, check if the content (especially the version numbers!) is the same as the passenger-install-apache2-module installer said. When you're in doubt, do what passenger tells you.

```
LoadModule passenger_module /home/openpr
oject/.rvm/gems/ruby-2.1.5/gems/passenge
r-4.0.53/buildout/apache2/mod_passenger.
so
```

DeclareVariables
RootFile

DeclareVariables
RootFile

(https://www.openproject.org/)

```
<IfModule mod_passenger.c>
   PassengerRoot /home/openproject/.rvm/g
ems/ruby-2.1.5/gems/passenger-4.0.53
   PassengerDefaultRuby /home/openproject
/.rvm/gems/ruby-2.1.5/wrappers/ruby
</IfModule>
```

Then run:

```
[root@openproject] a2enmod passenger
```

DeclareVariables
RootFile

As the root user, create the file
`/etc/apache2/sites-available/openproject.conf`
with the following contents:

```
<VirtualHost *:80>
    ServerName www.myopenprojectsite.com
    # !!! Be sure to point DocumentRoot t
o 'public'!
    DocumentRoot /home/openproject/openpr
oject/public
    <Directory /home/openproject/openproj
ect/public>
        # This relaxes Apache security set
tings.
        AllowOverride all
        # MultiViews must be turned off.
        Options -MultiViews
        # Uncomment this if you're on Apac
he >= 2.4:
        Require all granted
    </Directory>
</VirtualHost>
```

InsertIntoFile

Let's enable our new `openproject` site (and
disable the default site, if necessary)

```
[root@ubuntu] a2dissite 000-default
[root@ubuntu] a2ensite openproject
```

DeclareVariables
RootFile

(https://github.com
/opf/openproject/blob/release
/4.1/doc/operation_guides
/manual/installation-
guide.md#debian-and-ubuntu-

(https://www.openproject.org/)

```
[root@all] service apache2 reload
```

Your OpenProject installation should be accessible on port 80 (http). A default admin-account is created for you having the following credentials:

```
Username: admin
Password: admin
```

Please, change the password on the first login. Also, we highly recommend to configure the SSL module in Apache for https communication.

(https://github.com /opf/openproject /blob/release/4.1/doc /operation_guides/manual /installation- guide.md#activate- background-jobs)Activate Background Jobs

OpenProject sends (some) mails asynchronously by using background jobs. All such jobs are collected in a queue, so that a separate process can work on them. This means that we have to start the background worker. To automate this, we put the background worker into a cronjob.

```
[root@all] su - openproject -c "bash -l"
[openproject@all] crontab -e
```

DeclareVariables
RootFile

Now, the crontab file opens in the standard editor. Add the following entry to the file:

```
*/1 * * * * cd /home/openproject/openproject;
/home/openproject/.rvm/gems/ruby-2.1.5/wra
ppers/rake jobs:workoff
```

This will start the worker job every minute.

(https://www.openproject.org/)

/operation_guides/manual /installation- guide.md#follow- ups)Follow-Ups

Your OpenProject installation is ready to run. However, there are some things to consider:

- Regularly backup your OpenProject installation. See the backup guide (https://github.com/opf/openproject /blob/release/4.1/doc/operation_guides /manual/backup-guide.md) for details.
- Serve OpenProject via https
- Enable Repositories for your OpenProject projects
- Watch for OpenProject updates. We advise to always run the latest stable version of OpenProject (especially for security updates). Information on how to perform an update can been found in the upgrade guide (https://github.com /opf/openproject/blob/release/4.1/doc /operation_guides/manual/upgrade- guide.md). You can find out about new OpenProject releases in our news (https://community.openproject.org /projects/openproject/news), or on twitter (https://twitter.com/openproject).

(https://github.com /opf/openproject /blob/release/4.1/doc /operation_guides/manual /installation- guide.md#plug- in-installation- optional)Plug-In Installation (Optional)

(https://www.openproject.org/)

capabilities. For general information and a list of all plug-ins known to us, refer to to the plug-in page (https://community.openproject.org/projects /openproject/wiki/OpenProject_Plug-Ins).

OpenProject plug-ins are separated in ruby gems. You can install them by listing them in a file called Gemfile.plugin . An example Gemfile.plugin file looks like this:

```
# Required by backlogs
gem "openproject-meeting", git: "https:/
/github.com/finnlabs/openproject-meeting
.git", :tag => "v4.1.0"
```

InsertIntoFile

If you have modified the Gemfile.plugin file, always repeat the following steps of the OpenProject installation:

```
[openproject@all] cd ~/openproject
[openproject@all] bundle install
[openproject@all] npm install
[openproject@all] RAILS_ENV="production"
 bundle exec rake db:migrate
[openproject@all] RAILS_ENV="production"
 bundle exec rake db:seed
[openproject@all] RAILS_ENV="production"
 bundle exec rake assets:precompile
```

DeclareVariables
RootFile

Restart the OpenProject server afterwards:

```
[openproject@all] touch ~/openproject/tm
p/restart.txt
```

The next web-request to the server will take longer (as the application is restarted). All subsequent request should be as fast as always.

We encourage you to extend OpenProject yourself by writing a plug-in. Please, read the plugin-contributions (https://community.openproject.org/projects

(https://www.openproject.org/)

(https://github.com /opf/openproject /blob/release/4.1/doc /operation_guides/manual /installation- guide.md#troubleshooting)Troubleshooting

You can find the error logs for apache here:

```
/var/log/apache2/error.log
```

The OpenProject logfile can be found here:

```
/home/openproject/openproject/log/produc
tion.log
```

If an error occurs, it should be logged there.

If you need to restart the server (for example after a configuration change), do

```
[openproject@all] touch ~/openproject/tm
p/restart.txt
```

(https://github.com /opf/openproject /blob/release/4.1/doc /operation_guides/manual /installation- guide.md#frequently- asked-questions- faq)Frequently Asked Questions (FAQ)

- I followed the installation guide faithfully and OpenProject is running. Now, how do I log in?The `db:seed` command listed above creates a default admin-user. The username is `admin` and the default password is `admin` . You are forced to change the admin password

(https://www.openproject.org/)

```
[openproject@all] RAILS_ENV="product
ion" bundle exec rake db:seed
```

- **When accessing OpenProject, I get an error page. How do I find out what went wrong?**Things can go wrong on different levels. You can find the apache error logs here:

```
/var/log/apache2/error.log
```

The OpenProject log can be found here:

```
/home/openproject/openproject/log/pr
oduction.log
```

- **I cannot solve an error, not even with the log files. How do I get help?**You can find help in the OpenProject forums (https://community.openproject.org /projects/openproject/boards). Please tell us, if possible, what you have done (e.g. which guide you have used to install OpenProject), how to reproduce the error, and provide the appropriate error logs. It often helps to have a look at the already answered questions, or to search the Internet for the error. Most likely someone else has already solved the same problem.
- **I get errors, since I have installed an OpenProject plug-in**With each new OpenProject core version, the plug-ins might need to be updated. Please make sure that the plug-in versions of all you plug-ins works with the OpenProject version you use. Many plug-ins follow the OpenProject version with their version number (So, if you have installed OpenProject version 4.1.0, the plug-in should also have the version 4.1.0).
- I get an error during @bower install@

(https://www.openproject.org/)

this:

> bower openproject-ui_components#with-bower ECMDERR Failed to execute "git ls-remote --tags --heads git://github.com/opf/openproject-ui_components.git", exit code of #128
>
> Additional error details:
> fatal: unable to connect to github.com:
> github.com[0: 192.30.252.131]: errno=Connection refused
>
> npm ERR! OpenProject@0.1.0 postinstall: `./node_modules/bower/bin/bower install`

The solution is to configure git to use `https://` URLs instead of `git://` URLs lke this:

```
git config --global url."https://".insteadOf git://
```

(https://github.com
/opf/openproject
/blob/release/4.1/doc
/operation_guides/manual
/installation-
guide.md#questions-
comments-
and-feedback)Questions,
Comments, and Feedback

If you have any further questions, comments, feedback, or an idea to enhance this guide, please tell us at the appropriate community forum (https://community.openproject.org /projects/openproject/boards/9). Follow OpenProject on twitter (https://twitter.com /openproject), and follow the news on openproject.org (http://openproject.org/) to stay up to date.

(https://www.openproject.org/)

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installation/)

/ Manual Installation OP 4.1

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Manual Installation Backup
Guide
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installation-backup-guide/)
Install Plugins
(https://www.openproject.org
/open-source/install-plugins/)
System Requirements
(https://www.openproject.org
/open-source/manual-
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