KOHA
In Compatible With
UBUNTU 14.04.4
Koha Manual

By
Wasim Rahaman
Library Trainee
Biju Patnaik Central Library
National Institute of Technology
Rourkela
Odisha
India
Blog
http://wasimrlis.blogspot.in
Website
https://coprofessionals.wordpress.com

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Koha is an open source Integrated Library System (ILS), used world-wide. The name comes from a Maori term for a gift or donation. Koha is web-based ILS, with a SQL database (MySQL) backend with cataloguing data stored in MARC and accessible via Z39.50. The user interface is very configurable and adaptable and has been translated into many languages. Koha has most of the features that would be expected in an ILS, including: Web 2.0, Union catalog facility, Customizable search, Circulation and borrower management, Serials system, Reporting etc.

Koha was created in 1999 by Katipo Communications for the Horowhenua Library Trust in New Zealand, and the first installation went live in January 2000. From 2000, companies started providing commercial support for Koha, building to more than 20 today.

The latest stable release of Koha is 16.05.00. Koha is currently a very active project. According to Ohloh, it has a very large, active development team and a mature, well-established codebase. The analysis of the size of the code base may be deceptive because Koha stores user interface translations alongside actual source code and Ohloh cannot always distinguish them.

In this manual I have illustrated, how to install koha, what are the pre-requisites, and the process of step by step installing DSpace in Ubuntu.
System Requirement

Hardware Requirement

Processor Pentium- 4, 2.6 GHz or higher
RAM- 2 GB
HDD- 80 GB
DVD Drive/ USB Drive

Software Requirement

To install Koha for use we recommend

- A Linux server – Ubuntu is what most people use
- Apache
- MySQL
- Perl
- Root access to the server
- A better than average level of skill with the command line, Apache, and MySQL tools

Manpower

Professionals having well knowledge in Linux operating system and knowledge of Local Area Network (LAN).

Internet Configuration

A high speed dedicated Internet connection is required.
To install Koha, we need to install an operating system first. Koha run on Linux OS. There are two ways to install Linux; firstly you can install only Linux in your system or you can install Linux along with windows as dual booting. If you are installing only Linux in the system then you don’t need to set anything just processed to install. If you are installing Linux along with windows, then you have to set some pre-installing setting. Let’s set those first.

First right click on My Computer button and click on manage. See the below picture.

It will open the computer management tools. Then go to disk management. See the below picture.
There you can see the hard disk partitions of your system. Select the partition in which you want to install Linux. Then right click on that particular partition and then click on delete volume. It will format and delete your volume and make it available for you for your use. But make sure that you have moved all your personal files from there to other volume. Either you will lost everything on you have in that partition. Follow the below pictures.

After that the partition will be deleted and it will turn black or green in colour. Then download Linux (Ubuntu) from internet (http://releases.ubuntu.com/). An ISO image will be downloaded in your system. Then write it through DVD writing software like Nero, or you can make it bootable through some USB drive like pen drive (see how to make bootable pen drive in https://coprofessionals.wordpress.com/listech/other/bootable-drive/). Now you are all ready and can proceed for installing Linux.
Install Linux (Ubuntu)

Choose first in which method you want to install Linux. Then proceed for installation. I prefer choose the bootable method. This method works quickly. You can install through your disk. Just put the USB drive into your computer or insert the DVD into writer. Then restart your computer and press the boot key. Normally four keys working as boot key. ‘esc’, ‘f4’, ‘f9’, ‘f12’. But in some computer ‘f2’, ‘f3’, ‘f8’ are also functions as boot key. When the boot screen came, choose your boot drive by its name and hit enter. See the below picture.

Your screen may come with another image, but no need to worry the thing is same. Select your device first. If you are doing with pen drive then select USB drive option, and if you are doing with DVD then click on CD/DVD option. In the next step, it will ask you whether you want to try Ubuntu or install Ubuntu. Click on install Ubuntu. See the image below.

In the next step, it will ask to choose language. Default English language is already selected, so you just click on continue. See the below image.
In the next step, it will ask about the storage space and internet connection. The storage space is already created in Windows before proceed and no internet is needed to install Ubuntu. So simply click in the continue button. See the image below.

In the next step, it will detect operating system and ask for installation type. We are installing dual booting so I prefer choose something else option at the bottom. After selecting, click on continue. See image below.
In the next step, it will ask for creating partitions in the free space you have created in Windows. Select the free space and then click on ‘+’ button just below the free space on the left side. See the image below.

After clicking, a small tab will open. It will ask for creating partition through setting the some parameters. At first put disk size. In that space keep the full disk size as it is, no need to change. Then, choose the partition type. Here always choose the logical type because primary is already installed as Windows. Then left the location part as it is. Then left the use as part Ext4 journaling file system as it is. In the last, choose the mount point option as backslash ‘/’. It is actually called root. See the image below.
After that click ok, it will turn the storage into Ubuntu file system and look like something as the image below. After this, just select the file and click on install now.

When you click on install it will ask for partition conformation. Just click on continue. See the below picture.
After that, it will ask you for location. Select the location where you from. For example I have selected Kolkata or write Kolkata inside the box, it will automatically detect the place. Then click on continue. See the below image. After that in the next step, it will ask for select keyboard language. By default English is selected, so leave as it is and click on continue.
Then describe your name and your computer name. Try to keep the name short. Choose your password and confirm password. At the end click on continue. See the image below.

Your installation will start then. It will take some time to complete the installation. See the image below.
After completing the installation it will ask you to restart your computer/ laptop. Just click on restart. See the image below.

At the time of starting of your computer/ laptop again, the first interface will come just as the below image. Click on enter to if you want to open the Ubuntu. If you want to open the Windows, just click the down arrow key and move the highlight area on the Windows area then click on enter.

Your installation of Ubuntu as dual booting with Windows is completed.
Install Koha (by commands)

Installing Koha through commands is not that tough. It’s quite easy to install. Why? Once I have read the reason in a blog of Indranil Das Gupta sir. I think you should also read it here- “Command line in this day and age? Are you nuts???” So without wasting anytime we will proceed for the installation. You have set some prerequisites for installing the same like; a good internet connection (preferably high speed because some time slow internet connection can create disturbances while downloading the packages). Below, the yellow lines are the commands. If you are used to command lines then only type the commands in the terminal, either you can just copy and paste to execute the commands. Wrong executing of commands repeatedly can also create problem some time. So we are almost done. Now let’s start.

First, start Ubuntu and open the terminal/ command prompt. You can search in the terminal application at the top left menu or, you can just click ‘ctrl’ (control), ‘alt’ (alternate) and ‘t’ together. The terminal will open. It will looks like just as the below image.

After opening the terminal it is in ‘$’ user by default. You have gone to the super user (#). So execute the following command-

```
sudo su
```
or,

```
sudo -i
```
Give your root password which you have set as Ubuntu password at the time of installing Ubuntu and then click enter. It will take you to the root (#) user. See the below image.

Then update and upgrade your system by executing the following commands

```
apt-get update
apt-get upgrade
```

Next, add Koha community repository by running the following commands
echo deb http://debian.koha-community.org/koha stable main |
sudo tee /etc/apt/sources.list.d/koha.list

wget -O- http://debian.koha-community.org/koha/gpg.asc | sudo apt-key add -

apt-get update
In the next step, install the Perl modules by running the following command.

```
apt-get install libgd-perl
```

In the next step, Install Koha by running the following command

```
apt-get install koha-common
```

While installing Koha, in the middle of the installation it will ask to configure the system mail. You have to give the mail name. Then press the ‘tab’ button and press enter.
In the next page it will ask to continue with the mail configuration. Just press the ‘tab’ button and press enter.

In the next page, configure the nullmailer by giving the mail name. Then press the ‘tab’ button and press enter.
In the next step, configure the server by running the following command.

```
sudo gedit /etc/koha/koha-sites.conf
```

The above command will open an editor page. Here, add the port number for staff client and OPAC. Don’t keep same port no for both. After that save and close the editor.
In the next step, install MySQL server by running the following command.

```
sudo apt-get install mysql-server
```

While installing, it will ask to set MySQL root password. Give the password and then press the ‘tab’ button and press enter. In the next page it will ask to retype the password. Again give the same password and then press the ‘tab’ button and press enter.
In the next step, create Apache configuration file by running the following commands.

```bash
sudo a2enmod rewrite
```

```bash
sudo a2enmod cgi
```
In the next step, create Koha database by running the following command. Here it was given ‘library’ for example.

```
sudo service apache2 restart
```

After pressing enter, it will ask MySQL root password. Give the password you have set at the time of installing MySQL. Then it will ask some question to you. Give the first answer ‘n’ and then ‘y’ for the rest question.
In the next step, add new post for the assigned Koha staff client and OPAC by running the following command.

```
sudo leafpad /etc/apache2/ports.conf
```

It will open an editor. Here add the port number what you have assigned before for OPAC in after Listen. Then press enter and write `Listen` and then add the staff client port what you have assigned before. Then save and close the editor.

After closing the editor restart the Apache by running the following command.

```
sudo service apache2 restart
```
In the next step, enable some modules by running the following commands.

```
sudo a2dissite 000-default
sudo a2enmod deflate
sudo a2ensite library
```

Then restart the Apache by running the following command.

```
sudo service apache2 restart
```

In the next step, change the Koha default master password. In order to do so, you have to enter in MySQL and run some commands.

```
mysql -uroot -p
```

Give the MySQL root password. Then run the commands.

```
use mysql;

SET PASSWORD FOR 'koha_library'@'localhost' = PASSWORD('koha123');
flush privileges;
quit;
```

After coming from MySQL to root run the following command

```
sudo gedit /etc/koha/sites/library/koha-conf.xml
```
It will open and editor. Find there the following piece of information in the below image. Change the password given in the ‘<pass> </pass>’ tags. Then save and close the editor.

Your installation is almost done. Next open the firefox browser and enter the URL ‘localhost:(your staff client port no what you have assigned)’. Here it is 8001 for example.
It will open the Koha staff client portal. Give your client user name and password and login.

After login, you have to install some packages manually. First is the language.
After installing required Perl modules and dependencies. Just click on next.

Next confirm the database setting and the click on next.
After establishing connection just click on next.

In the next stage, database tables need to create. Click next for installing the same.
After creating the database tables, just click on next.

In the next stage, we have to install some basic configuration setting. To install the same just click on the linked line.
In the next stage, chose the MARC form for record keeping. Chose MARC21 and then click next.

In the next stage chose the MARC framework for MARC21. Select all the sample data by click on the boxes.
After selecting, click on import to install the MARC21 parameter.

Here all the parameter are set. Then finish the installation by click on the finish the button.
After finishing, it will show that installation is completed successfully. After some time the Koha staff client login will come automatically. If it’s not coming then click on the here button just as the below image.

Login your staff client by your user id and password.
Enjoy your Koha using.

For OPAC, open another tab and put the URL `localhost:(your OPAC port what you have assigned). Here it is 8000 for example.

Reference

http://kohageek.blogspot.in/2015/05/install-koha-on-ubuntu-1404.html
https://www.youtube.com/watch?v=1vTR-Mu2uT8
https://www.youtube.com/watch?v=hOz66FC0pWU&t=313s

-----THE END-----