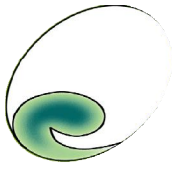


Open Source ILS Software: KOHA



What does Open Source mean?

- **The term “open source” refers to software that is free and that includes the original source code used to create it so that users can modify it to make it work better for them.**
- **open source software may be free, a developer or distributor may charge for services, including special programming, installation, training, and technical support.**
- **Quality, not profit drives open source developers who take personal pride.**



Advantages of Open Source Software :

- ***Ability to tailor to fit local needs :***

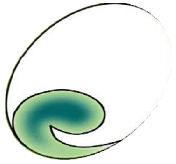
The availability of the source code means that a user can modify and enhance the software to more closely fit its own needs .

- ***No restriction on use :***

There are no contractual restrictions on how the software is used .

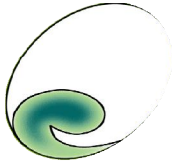
- ***Low cost :***

There is no charge for the software itself. The major cost is local development. If the number of users is large, and they share their efforts, each user's cost is reduced.



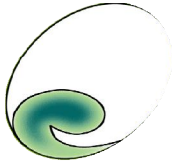
Disadvantages of Open Source Software:

- ***Unanticipated Efforts*** : A library may find that it needs to do a great deal more work than anticipated to adapt the software to local needs.
- ***Lack of coordination*** : The decentralized development of open source software means that progress can be chaotic and there may be delays in addressing bugs.
- ***Inadequate technical support*** : Documentation tends to be limited and aimed at developers. There usually is limited technical support, especially for users of the software
- ***Customization*** : Open source software may not offer the level of customization as it is being done in case of commercial software.



Open Source Integrated Library System Products :

- **MicroLCS,** ■ **Koha**
- **Emilda** ■ **OpenBiblio**
- **Evergreen** ■ **phpMyLibrary**
- **FireFly** ■ **PMB**
- **GNUTeca** ■ **PYTHEAS**
- **Avanti** ■ **WEBLIS.**



Criteria for Evaluating Open Source Integrated Library Systems :

- **There is active current development under way.**
- **At least the cataloging, circulation, patron access catalog modules, acquisitions and serials control should be available. It should be**
- **MARC is supported.**
- **Current source code and documentation are available for downloading under the GNU General Public License**
- **The product is currently in use in libraries.**
user friendly system.



What is Koha ?

- Koha is a full featured Integrated Library System (ILS). there is no cost for the license, you have the freedom to modify the product to adapt it to your needs, etc.
- Developed initially in New Zealand by Katipo Communications with Horowhenua Library Trust.
- It is currently maintained by a dedicated team of software providers and library technology staff from around the globe.
- That by adopting it, the customer becomes "joint owner " of the product. In particular, the customer can freely install new versions or not, and can take part in new developments by financing them or by carrying them out them self.



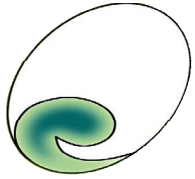
Why Open Source Software Koha:

- **Proven, Stable Technologies:** Koha is tried and tested and has demonstrated both stability and scalability, used in hundreds of libraries worldwide.
 - **Software Collaboration and Resource Sharing:** software solutions that are freely available to all libraries worldwide. libraries benefits from the contributions of other participating library systems.
 - **Long term Support:**With proprietary software, source code is 'closed' and support and future development of the product rely on the success and resources of a single vendor. If the vendor goes under, so does your product support. open-source solutions rely on stable code bases developed and supported by many providers worldwide.
 - **User-driven:** open-source software user-driven--you decide what features are important and deserve attention rather than a vendor.
- continued----



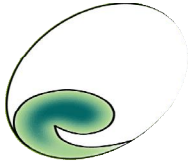
Why Open Source Software Koha:

- **Cost-effective:** paying licensing fees for proprietary solutions, users of open-source software can often deploy the product using in-house resources. They pay only for needed support or any additional vendor services they require.
- **Innovation:** code is open, users are free to innovate and improve the software to meet their needs Free innovation also means that open-source software has much faster development cycles when compared to proprietary software.
- Free/open source software koha is an economical alternative to reliance upon commercially supplied software. It means the cost involved development, license, upgrading, maintenance etc., lower than commercial software. koha does not need the initial cost like commercial software.
- Free/Open source Koha has all the feature of commercial software.
- Motivate and encourage staff to creativities.



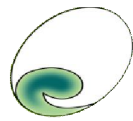
What does it cost Koha?

- **Free/open source software Free download under the GNU General Public License.**
- **Users of open-source software Koha can often deploy yourself using in-house resources. They pay only for needed support or any additional vendor services they require.**
- **It means the cost involved development, upgrading, maintenance etc., Koha does not need the initial cost like commercial software.**
- **Here cost means commitment, dedication, and a long term efforts to sustain and development of the software.**



Who uses Koha?

- More than 300 libraries are using Koha, including academic, public, school and special libraries, in Africa, Australia, Canada, USA, France, India and, of course, New Zealand. Along with a committed team of programmers its development is steered by a growing community of libraries collaborating to achieve their technology



Koha Feature

- A full featured modern integrated library software (ILS).
- Award winning and free/Open-source Software.(no license fee).
- OS independent any operating system. Linux, Unix, Mac.
- Web based. Web-based Interfaces. We can integrate with website.
- Full MARC21 and UNIMARC support for professional cataloguing.
- Multilingual and multi-user support
- Library-Standards-Compliant. industrial standards & protocols.
- Z39.50 server.
- Customizable web based opac.circulation system.
- Online reservation.
- Full catalogue, circulation, acquisitions, library stock management.
- Web based OPAC, public to search the catalogue.
- Major industry-standard database type (text, RDBMS), SQL,MYSQL.
- Serial management module.
- Print your barcode.
- Export and import records, ISO2709



Koha System Architecture:

- Koha is based on a client-server architecture.
- **Network Server:** koha can be installed on a server running Linux, Unix, Mac. The recommended operating system is stable version of Debian Linux, although Koha can run on any modern operating system.
- **Client Workstations:** Koha requires only a web browser on the workstation (a graphical browser, or even a text browser for the OPAC). Koha thus functions on PCs running Windows, PCs running Linux, Macs, or even UNIX workstations.
- Koha runs over any TCP-IP network.
- Koha accommodates low-bandwidth connections. It is completely usable on ordinary telephone line connections. This is more true of the librarian interface than of the public interface (OPAC).



Koha Standards

- The developers of the product have taken care to adhere strictly to international standards.
- Industry standards: Z39.50, UNIMARC, ISO2709, MARC21.
- For technical standards: the OPAC is "valid XHTML ", and respects the standards of accessibility.
- Web standards recommended by the World Wide Web Consortium.



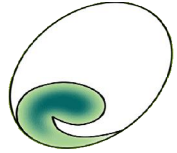
Koha Requirement:

- Koha version 2.2.9 Free (download from <http://www.koha.org/>)
- Apache web server, 2.0.58 free (download from <http://www.apache.org>)
- MySQL. Relational Database Management System (<http://www.mysql.com>) free
- Perl modules 5.8. (<http://www.cpan.org>). free.
- Linux (RHEL 3.0, 4.0, 5.0) or Any flavour of LINUX or WINDOWS Server



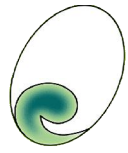
Koha Server Software:

- **Server operating system:** Linux, OpenBSD, FreeBSD, MacOS X, or any other Unix.
- **Web server:** Apache.
- **Programming language:** Perl.
- **Database:**MySQL.
- **Integrated Library software:** Koha 2.2.9



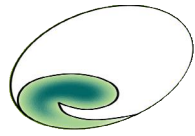
Koha Client Software:

- Koha requires a recent Internet browser.
- Mozilla is advised, but not obligatory. (Koha works with Internet Explorer.).
- Certain data validity checks are made on the client machine, JavaScript must be enabled.
- The public interface (OPAC) conforms with XHTML1.0 standards: the utility is thus compatible with alternate browsers. In particular, the OPAC can be used by people needing special assistive technology (Braille browsers, voice synthesis, text-based browsers, etc.).

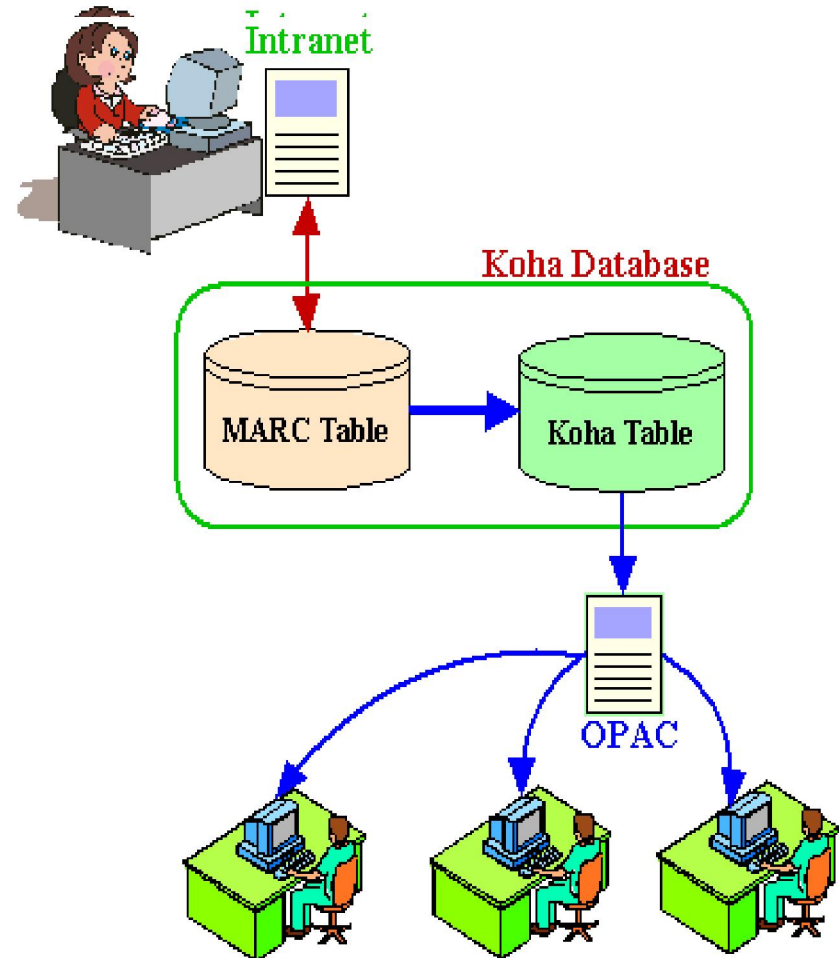
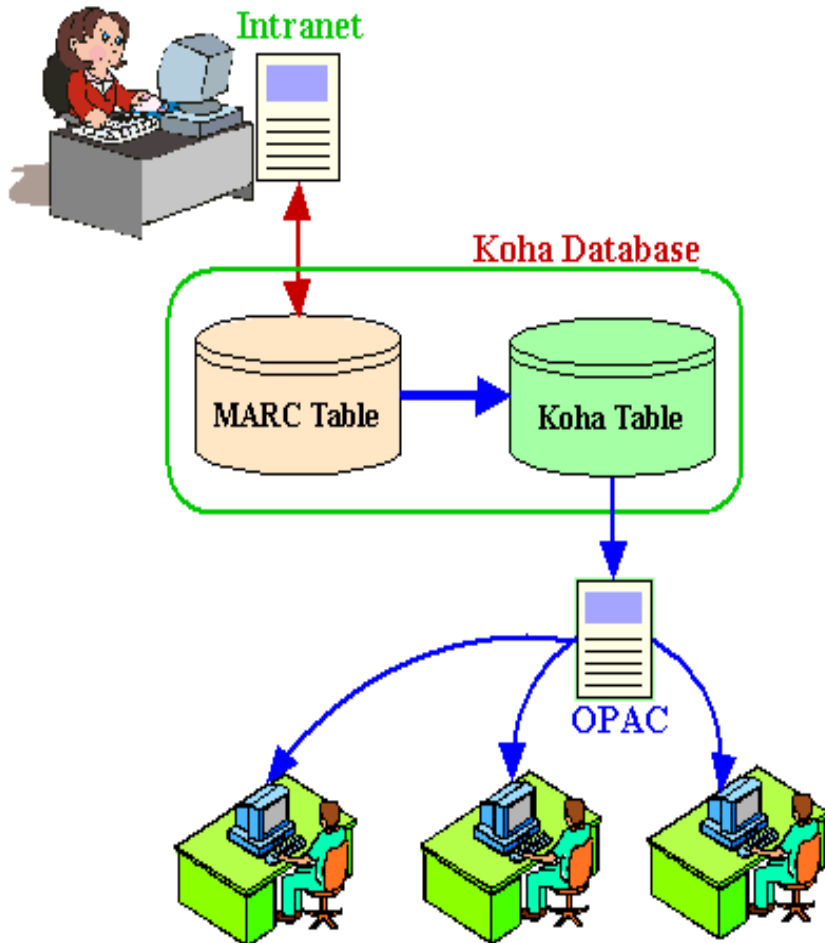


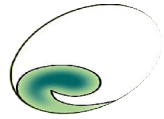
Skill Requirements To Operate System:

- Koha's interfaces are designed with usability in mind and are extremely user friendly.
- Staff and patrons with only basic computer skills have quickly learned to use the system efficiently.
- The cataloging module requires an understanding of cataloging practices such as MARC, Z30.50 retrieval tools, how to add holdings information, etc.
- Administrators should know operating system (Linux, etc.) for maintenance, some knowledge of cataloging in setting up the system preferences.



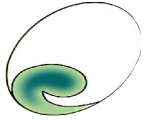
System Overview:





Koha Modules:

- OPAC
- Full catalogue.
- Circulation.
- Serials.
- Acquisition.
- Patron Management.
- Branch management.
- Reservations.



Koha OPAC Module:

- Koha provides a full-functioned Online Public Access Catalog (OPAC).
- OPAC users can carry out searches starting from ten fields (Keyword, Subject, Title, Class, Barcode, author, publisher, etc.). As in the librarian interface, they can order the results according to several criteria.
- OPAC users who are logged-in members can place reservations on library items.
- Biblio basket: Logged-in members can select records from an OPAC search and retrieve them by e-mail, either in human-readable form or in an ISO2709-format file. An ISO2709 file can be processed using bibliographic software like End Note.
- OPAC users can submit suggestions for acquisition. Koha automatically informs the OPAC user (by e-mail) of the action taken on each suggestion.



Koha Delegation of Authority:

The administrator can allot one or more of the following capabilities to each staff member:

- Super-librarian: access to all functions.
- Circulation: carry out circulation tasks.
- Catalogue: search the catalogue.
- Parameters: administer the system parameters.
- Borrowers: manage the public users (addition, modification, restriction, etc.).
- Permissions: administer staff access to functions.
- Reserves for others: place reserves on items for any borrower.
- Reserves for oneself: place reserves for oneself
- Loan: loan items to borrowers.
- Cataloguing: manage the catalogue.
- Charges: manage the fines and fees levied against members.



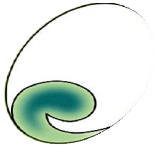
Koha Members Module:

- The members (borrowers) module makes it possible to manage not only individual borrowers, but also institutions.
- Each member belongs to a category. The member category defines:
 - The minimum and maximum ages for members of the category
 - The cost of placing a reservation on an item (when it is applicable in the library)
 - The rules of circulation.
- By entering the borrower's library card number into the librarian interface, the librarian can:
 - See the financial standing of the borrower (charges due).
 - See the borrower's reservations, and his/her outstanding loans.
 - Set permission flags (for the librarian members).



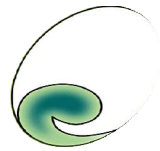
Koha Circulation module:

- **Borrowing a book from any branch (not just the branch where the borrower first registered)**
- **Returning an item at any branch**
- **Reserving an item for at any branch.**
- **Circulation rules can be defined very finely by the library: for each member category, item category, and holding branch of the item, the duration of the loan and the maximum number of books loan able can be defined.**
- **Returning items ("checking-in") is extremely easy: Simply scan the barcodes of the items being returned.**



Koha Cataloguing Module:

- **MARC Management** :The cataloguing module is one of the principal strong points of Koha. Several "frameworks " can be defined to do different cataloguing for monographs, electronic resources, periodicals, etc.
- **Export/Import**:Importing records in ISO2709 format (the MARC reservoir) and through Z39.50 (client) for fast cataloguing.
- **Copy records**:One or more copy records can be attached to each bibliographic record.
- **Fast cataloguing**:To accelerate cataloguing, Koha provides, Management of a MARC record reservoir, in ISO2709 format, A Z39.50 client that can access several Z39.50 servers
- **MARC view and simple view**:Catalogue data can be displayed in MARC format, in simplified form.
- **Searching**:searches can be performed on any MARC field. Advanced functions, search on one word, the beginning of the field, greater than, less than, etc are also available.



Koha Serials Module:

- It is possible to register subscriptions with reviews, and to track the arrival of periodicals.
- Koha manages late issues, skipped issues, and claims with the suppliers.
- Koha manages complex classifications, allowing the librarian to work with eleven different publication periods (from daily newspapers to annual publications), with delayed publications, and with publications out of sequence.
- A state of the collection can be defined which will synthesize the missing publications, received publications, etc.
- The state of the collection can be displayed differently in the OPAC and in the librarian interface.



Koha Acquisition Module:

- **Simple acquisitions:** The simple acquisitions module makes it possible to acquire materials and add them directly to the catalogue. It does not manage budgetary matters, the orders placed with the suppliers, etc.
- **Full acquisitions:** The full acquisitions module makes it possible to manage: Budgets and book funds: Budget available, Committed, Spent Suppliers. Orders, via 'shopping baskets'.



Koha Personalization:

- The architecture of Koha divides the software into three different layers..
- The database layer, which manages access to the DBMS (database management system)
- The processing layer, which manages the processes required by the user
- The formatting layer, which contains templates for the HTML presentation
- The visible interface of the software is thus entirely customizable. Koha's Intranet and OPAC by selecting from several 'themes'
- The librarian interface uses cascading style sheets (CSS). It is more coherent and easier to follow than was the case in version 2.0.

Koha Operating Parameters:

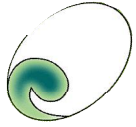
Koha allows you to set various parameters which control the operating environment of the library:

- **Library branches:** defining branch categories, branches, and contact information.
- **Item types:** Define library items.set rental charges of any amount to users for borrowing items.
- **"Not for loan"** for item types such which do not leave the library; issuing
- **Define Borrower Categories:** Set "Category Codes", "Descriptions", "Enrollment Periods", "Upper Age Limit" and "Age Required" for each user type;
- **Issuing rules:** define issuing and fines based on borrower categories, item types, and circulation units (matrix-based rule set);
- **Stop words:** improve list all of the words Koha should ignore when performing catalog searches or building the index
- **Z39.50:** define servers for searching using Koha's Z39.50 client (for cataloging); to add servers, enter the domain name or IP address of the server, the port number to use, and the name of the database to access.
- **Book funds:** set up accounts that keep track of expenditures for library materials.



Koha Back-up Software:

- **SSH-tunneled MySQL replication.**
- **Database dumps using the mysql dump utility**
- **On the hardware level, the production system utilizes a two-disk RAID 1 configuration for data redundancy in the event of single-disk hardware failure. The system partitions use the Reiserfs journaling file system which provides another point of data redundancy**



Encoding & Character Sets in Koha

System \$ echo \$LANG

```
en_US.UTF-8
```

Apache2: Be sure to have these lines in your http.conf:

```
AddCharset UTF-8 .utf8
```

```
AddDefaultCharset UTF-8
```

MySQL , **Server Configuration**, edit your my.cnf

```
init-connect = 'SET NAMES utf8'
```

```
character-set-server=utf8
```

```
collation-server=utf8_general_ci
```

Check to make sure the following are set to utf8:

character_set_client	utf8
character_set_connection	utf8
character_set_database	utf8
character_set_results	utf8
character_set_server	utf8
character_set_system	utf8
collation_connection	utf8_general_ci
collation_database	utf8_general_ci
collation_server	utf8_general_ci



Koha Resources :

- <http://kohadocs.org>
- <http://koha.org/manual>
- <http://www.skemotah.com/>

<http://athenscounty.lib.oh.us/koha.html>

- <http://sourceforge.net/projects/koha> Koha project CVS host (2.2/2.0 source code repository/download)
- <http://www.mjr.dsl.pipex.com/> Koha project Arch host (2.0 source code/repository/download)
- <http://koha.org/wiki> KohaWiki
- <http://bugs.koha.org> Koha bug reporting system
- <http://koha.org/mailling/> Koha mailing lists page
- <http://koha.org/irc/> Koha IRC logs
- <http://koha.org> Koha Homepage
- <http://www.tllp.co.uk/koha/> Koha England

