Research Paper Education

New Gen Lib : Open Source Software From India

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ABSTRACT

This paper highlights the features of New Gen Lib Open source software (OSS), the first of its kind development in India. We will discuss the issues like history of OSS, their definition, selection criteria of library automation software; factors pushing the use of OSS; the features of New Gen Lib Open source software and evolution and advantages and disadvantages in this paper.

KEYWORDS | New Gen Lib, Open source software and Library automation software.

Introduction

New Gen Lib is the open source integrated library management web based Library automation and informational retrieval system. On January 2008 New Gen Lib was declared open source software under GNU General public license. The latest version of New Gen Lib is 3.0.4RI released on September 2012. Many libraries specially from developing countries are using it as primary integrated library management system. The software has use Java and J2EE based application server technologies. It is totally supportive by international standard like MARC_ 21, AACR-2R, UNICODE4.0, MARC-XML and Dublin Core.

The Open Source Initiative (OSI), 2013:

It identified ten criteria for a software product to be called open source. The OSI certifies a software license as an 'OSI Certified License' on the basis of the following "Ten Commandments".

1. **Free Redistribution** –The license shall not restrict any party from selling or giving away the software as a component of an aggregate software distribution containing programs from several different sources. The license shall not require a royalty or other free for such sale.
2. **Source Code**- The program must include source code and allow distribution in source code as well as compiled form. Where some form of a product is not distributed with source code, there must be a well-publicized means of obtaining the source code for no more than a reasonable reproduction cost preferably, downloading via the internet without charge. The source code must be the preferred form in which a programmer would modify the program.
3. **Derived Works**-The license must allow modifications and derived works, and must allow them to be distributed under the same terms as the license of the original software.
4. **Integrity of the Authors Source Code**- The license may restrict source-code from being distributed in modified form only if the license allows the distribution of 'patch files' with the source code for the purpose of modifying the program at build time.
5. **No Discrimination against Persons or Groups**- The license must not discrimination against any Persons or Groups of persons.
6. **No Discrimination against Fields of Endeavor**- The license must not restrict anyone from making use of the program in a specific field of endeavor. For example, it may not restrict the program from being used in a business, or from being used for genetic research.
7. **Distribution of License**- The rights attached to the program must apply to all to whom the program is redistributed without the need for execution of an additional license by those parties.
8. **License must Not be Specific to a Product**- The rights attached to the program must not depend on the programs being part of a particular software distribution. If the program is extracted from that distribution and used or distributed within the terms of the programs license, all parties to whom the program is redistributed should have the same rights as those that are granted in conjunction with the original software distribution.
9. **License Must Be Technology–Neutral-** No provision of the license may be predicted on any individual technology or style of interface.
10. **License Must be Restrict Other Software** The license must not place restrictions on other software that is distributed along with the licensed software. For example, the license must not insist that all other programs distributed on the same medium must be open-source software.

Factors pushing the use of OSS

According to Chudnov (2008) there are three factors pushing the use of OSS in libraries:

1. OSS license allow libraries to cut budget on software and use it to other issues needing more funds.
2. OSS product is not locked into a single vendor. Thus even if a library buys an open source system from one vendor, it might choose to buy technical support from another company or get it from in-house experts.
3. The entire library community might share the responsibility of solving information systems accessibility issues.

OSS in Library and Information Management

Open Source Software has had an increasingly high profile in the library and information management profession since 1999. A September 1999 meeting of 80 senior American Academic Library managers created three "keystone principles' to set a foundation for future developments of library services. One of these, 'Libraries are responsible for creating innovative information systems for the dissemination and preservation of information and new knowledge regardless of format" had an action item to "Create interoperability in the systems they develop and create open source software for the access, dissemination, and management of information". Members of the profession have continued to have a high level of interest in OSS software, with more than 200 articles and conference papers published in the last 4 years to describe specific projects. The oss4lib portal (http://www.oss4lib.org),originally set up in

1999, listed over 1090 library-related projects in Nov 2008.

Genisis of New Gen Lib

New Gen Lib i.e., New Generation Library, an integrated library automation system developed in India, has recently joined the open source community. This product was introduced in2003, primarily intended for libraries in the developing world. It has been adopted by about 122 libraries, primarily in India, but with some sites in Syria, Sudan and Cambodia. The two groups collaborated in the development and support of New Gen Lib. Kesavan Institute of Information and Knowledge Management (KIIKM)which is a non-profit professional trust that spearheads the project. The software has been distributed under the traditional commercial license model since 2003. In January 2008, the decision was made to offer the system as open source software under the GNUGPL.

New Gen Lib VERSION 1.0 WAS RELEASED IN March 2005. On 9 January 2008, New Gen Lib was declared Open Source Software under GNUGPL License by Verus Solutions (2013). Currently New Gen Lib 3.0.2 is the latest version running. It is estimated that 2,500 libraries across 58 countries are using New Gen Lib as their Primary integrated library management system.

Salient features of New Gen Lib Software

1. Functional modules are completely web based. Uses Java Web Start Technology.
2. Compatibility- complies with international metadata and interoperability standards: MARC-21, MARC-XML, z39.50, SRU/W, OAI-PMH.
3. Uses chiefly open source components.
4. Scalable, manageable and efficient.
5. OS independent – Windows and Linux flavours available.
6. Z39.50 client for federated searching.
7. Internationalized application (118N).
   - Unicode 4.0 complaint
   - Easily extensible to support other language
   - Data entry, storage, retrieval in any (Unicode 3.0) language.
8. RFID integration.
9. Networking – Hierarchical and Distributed networks.
10. Automated email/instant messaging integrated into different functions of the software.
11. From letters are configurable and use XML-based Open Office templates
12. Extensive use of set up parameters enabling easy configuration of the software to the suit specific needs, e.g., in defining patron privileges.
13. Supports multi-user and multiple security levels.
14. Allows digital attachments to metadata.

Advantages of New Gen Lib Software

1. **Ability to Tailor to fit Local Needs**- The availability of the source code means that a user can modify and enhance the software to closely fit its own needs. Unlike with proprietary products, the user, not a vendor, sets the development priorities. The user is also able to set its own priorities for bug fixes.
2. **No restriction On Use**- Unlike commercial software, there are any contractual restrictions on how the software is used. While some developers use the GNU General Public License that assures users that they have the right to distribution and those to whom they distribute also have the right to modify and distribute, other developers merely declare that their software is in the public domain. A subsequent user may, therefore, decide to protect the enhancements that it makes by copyrighting them.
3. **Low Cost**- There is no charge for the software; therefore, the capital outlay required by commercial software is avoided. The major costs are ongoing development and maintenance. If the number of users is large, and they share their efforts, each users cost is reduced. However, if the number is small or a user does a lot of tailoring to fit the needs that are not shared by other users, the cost can escalate.

Disadvantages of New Gen Lib Software

However I pointed out some disadvantage of this type of open source software. They are lack of coordination, inadequate training and technical support, scalability and speed etc. However, the developer of the New Gen Lib Software is expected to solve these disadvantages. The open source software may not offer the scalability and speed of proprietary software because the easy-to-use and general-purpose programming languages used are not very scalable and are slower than other language. But New Gen Lib open source has overcome this problem. On the other hand, the Versus Solution Pvt Ltd organizes workshop and training programmes for appropriate support.

Type of Libraries-

New Gen Lib can be used for any type of library. In fact it is used by all types of libraries. This is because NGL is targeted towards public libraries. The types of libraries in which New Gen Lib can be used are:

- University libraries
- College/School libraries
- Public libraries
- Libraries in Research Institutes
- Libraries in Offices/ Corporates

Some of the Examples of Institutes using New Gen Lib:

- Bangalore University Library
- Indian Institutes of Technology, Rajasthan
- NISCORT media Training and research Institute, New Delhi
- Vivekananda international Foundation (Research Resource Centre & Library), New Delhi.

Migrating to New Gen Lib

- Implement in your library to automate the various services.
- You can get all your data (in any format i.e.-Excel, CDS/ ISIS, internet- LMS whatever) imported to New Gen Lib database. And ready to use.
- Get all the good features of New Gen Lib database
- Get all new updates, upgrades, version, and bug fixes of New Gen Lib free-of-cost for life-time. New Gen Lib guarantees life-time open source released

Conclusion

OSS has much potential for libraries and information centers, and there are a number of projects, including Greenstone, Koha, New Gen Lib and Dspace, etc that demonstrate its viability in this context. It gives library staff an option to be actively involved in development projects, and this involvement can take many forms, such as reporting bugs, suggesting enhancements, and testing new versions. Organization adopting OSS will need to provide their staff with additional development and training to enable them to take on these new roles effectively, and will need to have a long term commitment to the projects. Systems librarians and library managers should watch this trend for future developments.

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