

## Open Source Software's for Complete Library Management



\*Anand S. Medar

Guest Assistant Librarian, Dr. V.K. Gokak Library, Karnataka College Dharwad

### ABSTRACT

This paper introduces a study of open source Software's for Complete Library Management used to assimilate and disseminate information to world audience. In the last few years the Open Source Movement has changed the face of computing more than almost anyone would have thought possible. This article is intended to discuss the Open Source software, as well as ways for software developers to get involved by selecting and joining projects they want to contribute.

**Key Words:** Open Source, Library Management

### Introduction

Information technology has distorted the entire world into a global village. Rapid growth of information and knowledge made humankind dependent and libraries are not an exception to it. It is essential to execute use of certain technology-driven software to assimilate and disseminate vast information resources in the libraries. There are many proprietary (commercial) software are available to help the libraries to cope up with the latest technologies but many libraries cannot afford these software due to the budgetary provisions. It becomes costly matter in terms of preservation and procurement. But still many library professionals depend absolutely on commercial software. Once the commercial software is purchased, library has to depend on their terms and conditions and keep paying the AMC's yearly. Since librarians lack in technical experience, vendors try to put their own terms and conditions while purchasing any software. While supplying any commercial software, the vendors do not supply the same with its full functionality. For every new small feature they demand heavily from the customers.

On the other hand cost of free/ open source software (FOSS) rightly fit with the needs of the libraries. Open source library management software has generated lot of interest among the library professionals over the past years. Several FOSS are available for libraries to provide value added services to the end users. Many of the

library professionals are unaware of these softwares or due to insufficient technical experience they do not want to implement the same in libraries. This paper attempts to list some important FOSS which are useful for the libraries to provide better services.

### What is Open Source Software's?

Open source software is software that can be freely used, changed, and shared (in modified or unmodified form) by anyone. Open source software is made by many people, and distributed under licenses that comply with the Open Source Definition. Open source software is software whose source code is available for modification or enhancement by anyone

### Types of open source software's for library

- Cloud computing
- Digital library
- Content management software
- Lib Management(Automation)

### For cloud computing

#### Apache CloudStack

Apache CloudStack is open source software designed to deploy and manage large networks of virtual machines, as a highly available, highly scalable Infrastructure as a Service (IaaS) cloud computing platform. CloudStack is used by

a number of service providers to offer public cloud services, and by many companies to provide an on-premises (private) cloud offering, or as part of a hybrid cloud solution.

CloudStack is a turnkey solution that includes the entire "stack" of features most organizations want with an IaaS cloud: compute orchestration, Network-as-a-Service, user and account management, a full and open native API, resource accounting, and a first-class User Interface .

#### **OpenNebula**

OpenNebula is a cloud computing toolkit for managing heterogeneous distributed data center infrastructures. The OpenNebula toolkit manages a data center's virtual infrastructure to build private, public and hybrid implementations of infrastructure as a service. OpenNebula is free and open-source software, subject to the requirements of the Apache License version 2.

OpenNebula orchestrates storage, network, virtualization, monitoring, and security technologies to deploy multi-tier services as virtual machines on distributed infrastructures, combining both data center resources and remote cloud resources, according to allocation policies.

#### **Eucalyptus**

Eucalyptus is a free and open-source computer software for building Amazon Web Services (AWS) compatible private and hybrid cloud computing environments marketed by the company Eucalyptus Systems. Eucalyptus is the acronym for Elastic Utility Computing Architecture for Linking Your Programs To Useful Systems.

Eucalyptus enables pooling compute, storage, and network resources that can be dynamically scaled up or down as application workloads change. Eucalyptus Systems announced a formal agreement with AWS in March 2012 to maintain compatibility

#### **OpenStack**

OpenStack is a cloud operating system that controls large pools of compute, storage, and networking resources throughout a datacenter, all managed through a dashboard that gives administrators control while empowering their users to provision resources through a web interface.

#### **For Digital Library**

#### **D Space**

DSpace is the software of choice for academic, non-profit, and commercial organizations building open digital repositories. It is free and easy to install "out of the box" and completely customizable to fit the needs of any organization. DSpace preserves and enables easy and open access to all types of digital content including text, images, moving images, mpegs and data sets. And with an ever-growing community of developers, committed to continuously expanding and improving the software, each DSpace installation benefits from the next.

#### **Green Stone**

Greenstone is a suite of software tools for building and distributing digital library collections on the Internet or CD-ROM. It is open-source, multilingual software, issued under the terms of the GNU General Public License. Greenstone is produced by the New Zealand Digital Library Project at the University of Waikato, and has been developed and distributed in cooperation with UNESCO and the Human Info NGO in Belgium

#### **E Prints**

E Prints is a free and open-source software package for building open access repositories that are compliant with the Open Archives Initiative Protocol for Metadata Harvesting. It shares many of the features commonly seen in document management systems, but is primarily used for institutional repositories and scientific journals. EPrints has been developed at the University of Southampton School of Electronics and Computer Science and released under a GPL license

#### **For content management framework**

#### **Drupal**

Drupal is a free and open-source content management framework written in PHP and distributed under the GNU General Public License. It is used as a back-end framework for at least 2.1% of all websites worldwide ranging from personal blogs to corporate, political, and government sites including whitehouse.gov and data.gov.uk. It is also used for knowledge management and business collaboration.

The standard release of Drupal, known as Drupal core, contains basic features common

to content management systems. These include user account registration and maintenance, menu management, RSS feeds, taxonomy, page layout customization, and system administration.

The Drupal core installation can be used as a simple website, a single- or multi-user blog, an Internet forum, or a community website providing for user-generated content.

### **Joomla**

Joomla is an award-winning content management system which enables you to build Web sites and powerful online applications. Many aspects, including its ease-of-use and extensibility, have made Joomla the most popular Web site software available.

Best of all, Joomla is an open source solution that is freely available to everyone. Joomla is a free and open-source content management system for publishing web content. It is built on a model-view-controller web application framework that can be used independently of the CMS.

### **WordPress**

WordPress is a free and open source blogging tool and a content management system (CMS) based on PHP and MySQL. Features include a plugin architecture and a template system. WordPress was used by more than 22.0% of the top 10 million websites as of August 2013.

WordPress is the most popular blogging system in use on the Web, at more than 60 million websites. It was first released on May 27, 2003, by its founders, Matt Mullenweg and Mike Little. The license under which WordPress software is released is the GPLv2 from the Free Software Foundation

### **OpenCms**

OpenCms from Alkacon Software is a professional, easy to use website content management system. OpenCms helps content managers worldwide to create and maintain beautiful websites fast and efficiently.

The fully browser based user interface features configurable editors for structured content with well defined fields. Alternatively, content can be created using an integrated WYSIWYG editor similar to well known office applications. A sophisticated template engine enforces a site-wide corporate layout and W3C standard compliance

for all content. OpenCms is based on Java and XML technology. It can be deployed in an open source environment as well as on commercial components

### **For Library management**

#### **Koha**

Koha functionality has been adopted by thousands of libraries worldwide, each adding features and functions, deepening the capability of the system. With the 3.0 release in 2005, and the integration of the powerful Zebra indexing engine, Koha became a viable, scalable solution for libraries of all kinds. LibLime Koha is built on this foundation. With its advanced feature set, LibLime Koha is the most functionally advanced open source ILS on the market today.

#### **BiblioteQ**

BiblioteQ strives to be a professional cataloging and library management suite, utilizing a Qt interface and providing connectivity to PostgreSQL and SQLite. The SRU and Z39.50 protocols are used for retrieving data for books, journals, and magazines. The software is available for all major operating systems and should be compatible with any system that supports Qt. BiblioteQ is distributed under a BSD license.

#### **NewGenLib**

NewGenLib is an integrated library management system developed by Verus Solutions Pvt Ltd. NewGenLib version 1.0 was released in March 2005. On 9 January 2008, NewGenLib was declared Open Source Software under GNU GPL. The latest version of NewGenLib is 3.0.4 R1 released on 13 September 2012.

Many libraries across the globe are using NewGenLib as their Primary integrated library management system . Advanced feature of NewGenLib software is it supports Android mobile and tablet.

#### **Evergreen**

Evergreen is an open source Integrated Library System, initially developed by the Georgia Public Library Service for Public Information Network for Electronic Services , a statewide resource-sharing consortium with over 270 member libraries. Beyond PINES, the Evergreen ILS is deployed worldwide in hundreds of libraries, and is used to power a number of statewide

consortial catalogs. In 2007 the original Evergreen development team formed a commercial company around the software, Equinox Software, which provides custom support, development, migration, training, and consultation for Evergreen.

### **Conclusion**

Using open source software offers various advantages, such as the ability to reduce costs and development time, or to avoid being dependent on a single vendor. It is therefore to be expected that more and more companies and institutions will start using open source software.

There is however some risks associated with doing so. Being forced to release some or all of the software of a commercial product as open source software may greatly reduce its value.

It is therefore recommended to carefully study the license agreement and to make an assessment of the risks associated with these conditions.

One should always check whether the own application is clearly separated from software under the GPL. And of course compliance with the license conditions need to be checked.

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