Chapter - 8

OPEN SOURCE CONCEPT

OSS(Open Source Software) :

Oss is a package available with source code open for any required change or edit or re distribution without any specific authorization (password).

It allows free re-distribution of the software without royalties or licensing fees to the authors.

The source data can be distributed with the software or otherwise made available for no more than the cost of distribution.

Examples of open source software :

- Office automation software –open office, k office and neo office
- Operating system – Ubuntu, fedora, Linux, android
- Web browser- Mozilla, Firefox

- Web design- NVU, bluefish
- E-commerce- Zen cart, virtue mart
- Content management systems- Joomla, drupal
- Internet related software- Mozilla foundation (Firefox and thunderbird)
- Programming related software- java, python, my sql

Example of proprietary software-

- office auto motion software- Microsoft suite (MS Office)
- operating system –WINDOWS, IOS, MAC OS
- web browser- Internet Explorer, chrome
- audio and video playback- windows media player
- Programming related software- visual basic, C, visual basic IDE etc.

Freeware :

It is type of software available free of cost and allows copying and further distribution, but does not allows modification as its source code is not available

Shareware :

It is available for re distribution for stipulated time, but after sometime some license fee is required to be payed.

FOSS/FLOSS :

i. FOSS stands for Free Open Source Software and FLOSS stands for Free Libre Open Source Software.
ii. The word ‘libre/livre’ means freedom.
iii. This software are free as well as open.
iv. That is any one is freely licensed to use, copy, study and change the software in any way and source code is

openly shared, so that the developer or programmer are encounter to voluntarily improved the design of the software.

FLOSS is aimed to avoid talking whether it is a free software or an open source software.

Examples of FOSS/FLOSS

(1) GNU :-

i. It is an open source operating system developed by RICHARD M STALLMANIN in 1983.

ii. Unlike Linux, it supports the GNU HURD KERNEL and is intended to be a complete Unix compartable software system.

iii. Now it offers a wide range of softwares including applications apart from operating system.

(2) LINUX :-

i. It is an popular open source operating system original written by LINUS TORVALDS, a student of finish university in 1991.

ii. It is a part of popular web services program LAMP (LINUX,APPACHE,MY SQL,PHP).

iii. Linux can be downloaded from http://www.linux.org.

(3) MOZILA:-

i. It is a popular free and open source software.

ii. It was developed to create internet suites like web browser, E mail client, html editor, IRC (Internet Relay Chat) client etc.

iii. It is one of the most freely downloaded.

iv. Software on the net http://www.mozila.org

(4) OPEN OFFICE : -

i. It is an office application suite mode to be in competition with Microsoft office.

ii. Open office is based on the source code of older version of “star office” which was acquired and made open source by SUN MICROSYSTEMS.

iii. Open office includes the following components.

- Writer (word processer)
- Calc (spread sheet)
- Draw (graphics software)
- Impress (presentation program)
- Base (data base program)
- Math (edit for mathematical)

It can be integrated with data bases such as MY SQL and postgre SQL by configuring it.

Open office can be downloaded from http://www.openoffice.org

(5) JAVA : -

i. It is a programming language originally developed by JAMES GOSLING at SUN MICRO SYSTEMS in 1991.
ii. The language was first called OAK, but later renamed as java.
iii. It was released as a free and open source software product of sun Microsystems.
iv. The language derives much of its syntax from C and C++ ,but it has fewer low level facilities than either of them.
v. It is intended to let application developers, “Write Once ,Run Anywhere (WORA)” meaning the code that runs on one platform does not

need to be recompiled to run on another.

vi. java can be downloaded from http://www.java.com

(6) NETBEANS : -

i. Netbeans is an Integrated Development Environment (IDE) for developing applications in programming languages like java,PHP,C AND C++ AND HTML.

ii. It is also an application platform frame-work for java desktop applications and others.

iii. Netbeans IDE written in java can run on platforms like windows ,Linux, Solaris etc. compatible with Java Virtual Machine (JVM).

iv. Netbeans can be downloaded from http://www.netbeans.org

(7) MY SQL : -

i. My SQL is perhaps the most used open source Relational Data Base Management System (RDBMS) that runs as a server providing multi user access to a number of data bases.

ii. MYSQL development project has made its source code available under the terms of the GNU general public license as well as variety of proprietary agreements.

iii. It supports many languages such as C,C++,PHP,ruby,java,python etc.

iv. It can work on many platforms such as MS Windows, linux, Mac-Os etc.

v. it is used in many high profiles, large scale, world wide web products

including google, facebook ,twitter and youtube.

vi. It can be easily downloaded from http://www.mysql.com

COMMON OPEN STANDARDS : -

The open standards refers to internationally accepted technical standards. These standard are freely available and do not have any restrictions the file or information created using these standards are accessible, irrespective of any change in technology the data and information in open standards are accessible across the platform and applications. The open standards follow the principles like.

- Availability
- Maximize end user choice
- No royalty
- No discrimination

- Predatory practices

EXAMPLES OF COMMON OPRN STANDARDS

A. WWW(World Wide Web) :

It is an open source information space where documents and other web resources are identified by URL (uniform resources locator), interlinked by hypertext links and accessed via the internet.

B. HTML (Hyper Text Mark Up Language) :

It is the standard language for designing a web page. The html is a platform independent format . a web browser reads any html documents and compose them into visible or audible web page. The browser does not display the html tags, but uses the tags, to interpret the content of the page.

C. DHTML(Dynamic Hyper Text Mark Up Language) :

It is a collective term for a combination of Hyper Text Markup Language tags and options that can make web pages more animated and interactive than previous versions of html. Much of DHTML is specified in HTML 4.0. Simple examples of DHTML capabilities include having the color of a text, heading, change when a user passes a mouse over it and allowing a user to drag the drop an image to another place on a web page. DHTML can allow web documents to look and act like desktop applications or multimedia productions.

D. XML(eXtensibily Markup Language) :

It is a mark up language that defines a set of rules for encoding documents in a

format i.e both human readable and machine readable.

E. ODF (Open Document Format) :

The ODF is an open source standard for office documents (text, spreadsheet, presentations). ODF is the default file format for applications like open file 2.0, office1.5, star office IBM work place and many others. A document in odf can be represented either as a single xml documenter a collection of sub documents in a package

Most commonly used file extensions with ODF document are as follows.

- .odt for word processing (text) documents example file.odt

- .ods for spread sheet files. Eg-file.ods
- .odp for presentation files ex-file.odp
- .odg for graphics files ex-file.odg
- .odp for database files ex-.odb

F. TCP/IP (Transmission Control Protocol/Internet Protocol)

i. TCP/IP suite networking standards provides the foundation for the network infrastructure of the internet.

ii. It Is a two layered pocket switching specification in which data to be communicated between two end points on a network is first broken up into smaller data packets that are then individually routed through the

network from the source to the destination points.

iii. The higher layer, transmission control protocol manages the disassembling of the data into smaller packets at the source and the reassembling at the destination point upon receives of the data packets.

iv. The lower layer internet protocol handles the addressing and routing of each packet so that it gets to the correct destination.