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Benefits of Open Source ERP For SMEs in India

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ABSTRACT

ERP software can be extremely complex, as it must be to meet the needs of some of the largest and most sophisticated companies in the world. Open Source ERP - a fully featured, free and open source ERP software suite. Open source ERP systems are often targeted to enterprises whose requirements are not covered by standard software. The growth of Small and Medium Enterprises (SMEs) in India was increased gradually in the past decades. Major ERP package vendors are also concentrating to provide open source ERP for these SMEs in India. Many benefits to the SMEs by using open source ERP Softwares.

KEYWORDS: ERP, Open Source, SME, ERP Softwares

Introduction

Enterprise Resource and Planning (ERP) software comes as a suite of utilities to do just that and divides business processes broadly into the following conceptual areas in order to make the structure of very complex software management, manufacturing, supply chain, financial, project management, human resource management, customer/ supplier management. In other words, there's something for everyone who is involved with the management of companies. ERP software can be extremely complex, as it must be to meet the needs of some of the largest and most sophisticated companies in the world. Open Source ERP - a fully featured, free and open source ERP software suite. Open source ERP systems are often targeted to enterprises whose requirements are not covered by standard software. Similar circumstances apply to organizations that need continuous adoption of the software to changing processes and needs. In this work the suitability of current open source ERP systems for these enterprises will be examined.

Definition of Open Source

The OSI uses 10 criteria to define open source software:

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 fee for such sale.

2. Source code :
The program must include source code, and must 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 . Deliberately obfuscated source code is not allowed . Intermediate forms such as the output of a preprocessor or translator are not allowed.

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 Author's 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 The license must explicitly permit distribution of software built from modified source code . The license may require derived works to carry a different name or version number from the original software.

5. No Discrimination Against Persons or Groups :
The license must not discriminate against any person or group 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 program's being part of a particular software distribution . If the program is extracted from that distribution and used or distributed within the terms of the program's 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 not 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.

10.License Must Be technology-neutral :
No provision of the license may be predicated on any individual technology or style of interface. [1]

Benefits of Open Source ERP for SMEs

1. The user does not have to worry about the license cost of third party components like OS, Database etc. nor does the user have to worry about AMC about these products. Third party vendors do provide AMC for LAMP based products also, but the user has an option. If he/she is technically savvy, he/she may choose to maintain the system of self. If however, the user is not tech-savvy one may chose to go with a vendor for regular support.
2. With support of the larger community of developers Open Source comes with features that are much more user friendly many times than what people imagine.
3. Because of the quality of developers, generally the softwares are lighter to work on and maintain.
4. With the technology base of Open Source, products built on this platform are more suited for Cloud computing structure than other heavy weight products in the market.
5. It is light weight as compared to other available proprietary technologies, thus consume lesser hardware and network resources.
6. With Cloud computing coming up as the next wave, ERPs built on LAMP stack have a natural advantage in exploiting this technology. [2]

In a white paper released by Smile (a French company specialized in implementing Open Source solutions) in 2008, Valyi (2008) listed several advantages of Open Source ERPs:

Flexibility:
With Open Source ERPs, it is the source code itself which is made available for free and thus open for interfacing and integration with other systems. Moreover, customizing and integrating of the Open Source ERP with existing systems can become an easier task for the company to do it internally or to find external experts due to the availability of resources and documentation for free on the internet. Moreover, proprietary ERP vendors have the tendency to implement a less number of standards, as this can prove costly to them. Therefore, they usually use their own protocols which are not valid outside the limits of the vendor itself. This results in what is called vendor lock-in.

Quality:
Valyi (2008) argues that Open Source ERPs are distinguished by a superior quality on the technical level. This superior quality can be the result of the commitment of Open Source ERP vendors to technical challenges.

Ability of adaptation to the business environment:
For proprietary ERP vendors, it is up to client to adapt its business processes to the ERP system in question, justifying this by the fact that they have implemented a better knowledge in the domain and that they have implemented the best practices in their products. The Open Source ERP system offers the possibility to the client to adapt the system to its environment and business practices.

Infrastructure model that suits SMEs:
Proprietary ERP systems have a costly infrastructure model that prohibits them sometimes from adapting to the economic reality of SMEs. Moreover, at the technical level, proprietary ERPs incur high integration costs which is not convenient for SMEs. Nowadays, several traditional proprietary ERP vendors are trying hard to attract the SMEs segment by offering new solutions with lower integration costs. An example of this is SAP's Business One. But according to Valyi (2008), those offerings remain limited.

Open Source ERP Market
Observing the current market trend, here are Top 4 Open Source ERP Software applications. Looking at the current market demands where SMEs need have their prime focus on cost effectiveness, these applications are broadly designed for specific market needs of the SME market segment.

Opentaps
Opentaps has emerged as the leader of ERPs for SMEs mainly due to its user friendly interface, its compatibility with MySQL and PostgreSql, its object oriented domain driven architecture and test driven development process.

OpenMFG
OpenMFGSMEs that invest their maximum capital in purchasing software for accounting, invoice, inventory details and all that it takes for a small manufacturing unit have an alternative that does not require much of an investment. OpenMFG developed by Xtuples.

Compiere
CompiereA Cloud-based Open Source ERP and customer relationship management software specially designed to meet the requirement of an enterprise which can invest in a certain amount in cloud computing. Presently, there are many companies which provide Cloud space to SMEs but the cost factor comes into play when huge sums of money is charged for a comparatively lesser space.

ERP5
ERP5 is an Open Source/free enterprise planning framework, has been specialized to provide a growing number of applicative solutions for enterprise management.
It is specially made for the industries that can spare some capital on ERP, however it still happens to be relatively less expensive than the others in the league. An ERP5 starter would cost the user around 500 Euros, covering the initial phase of the starting service.

ERP 5 offers a wide range of software tools for various industrial purposes which range from basic ERP structure to specialized ERP for MRP, payroll, finance, CRM, and commerce. [4]

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