OSS Adoption Strategy in Information Management System

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Ringkasan

Information and Communication Technology (ICT) has started to emerge into a stage of pervasive technology. In applying the necessary of ICT environment that supports ICT technology and in accordance with the provisions. Ministry of Youth and Sports is very concerned about it so they decided to use OSS as a technology. The application has been proved by the application of OSS in the portal. When implementing OSS technology adoption, there are some things that become obstacles in this adoption. The biggest obstacle is time adaptation of Menpora employees in the use of OSS technology and the need to socialize more often in order to promote OSS technology. Nevertheless, they are supported and highly motivated by the Minister and also the whole staffs.

Keywords: Adoption, OSS, standard, and technology

1 Introduction

Entering the next era of globalization, the use of computer technology in all daily life can not be avoided. The ability of information exchange between parties in different places (apart over long distances) is one characteristic of the era of globalization. Even the use of computer technology will become the main requirement to show the quality of a certain field and become the most important capital in winning the competition. Therefore, many organizations want to take advantage of Information Technology with the aim to provide benefits in the decision-making in the organization, as well as an evaluation system in the organization.

At this time of Information and Communication Technology (ICT) has started metamorphosed into a stage of pervasive technology. In general, technology will pass through the stages in development such as the following:

1. Starting from a sense of wonder at the level of laboratory research.
2. Used by a small group of specialists to work on a specific problem
3. Can be produced during, and already came into common use but still requires special training and still used by a small group of users
4. Eventually become pervasive and is seen as part of normal life in most communities

2 Open Source System

Open source software (OSS) has been called many things: a movement, a fad, a virus, a communist conspiracy, even the heart and soul of the Internet. But one point is often overlooked: Open-source software is also a highly effective vehicle for the transfer of wealth from the industrialized world to developing countries.

The popular myth surrounding Free/Open Source Software is that it is always “free” — that is, “free of charge.” To a certain degree this is true. Most FOSS distributions (Red Hat, SuSE, Debian, etc.) can be obtained by free from the Internet. On a licensing cost basis, FOSS applications are almost always cheaper than proprietary software.

3 Problem in Developing Information System

One implementation of Information Management System in The Ministry of Youth and Sports can be identified as follows:

- Problem Definition Needs.
- Design Issues. In the development of designs that do not yet involve intense users of the early development of the system. This is due in part to the system development process is still utilizing classic method of Software Development Lifecycle (SDLC)
- Implementation Issues. Documentation that should be better. The use of shared data
• Operational Issues

• Problems care. Treatment not included in the job

• Non-technical issues. Socialization use of the system

4 Road Map of Menpora

Menpora is one of government bodies who decide for development system. In figure 1 show the planning and system implementation for 2010 until 2015. Through this road map the result of Menpora will increase because the goal of system can be measured. In this road map include some standard such as licenced standard, interoperability, open document standard. Licenced stand which use in menpora is open source standard (based The letter from MenPAN about Legal Use of Software in the OSS) and one important to create successful system is system development method so that in this road map describe some system development method such as prototipe method.

5 OSS based Portal

Ministry of Youth and Sports portal (show in figure 2) use OSS technology. Several technologies developed at the portal is the Apache web server, server virtualization (KVM), mySQL for database servers, ModSec, HTML and GreenSQL purifier for security application. The system was launching in February 2010 and based on Apache log analysis in February, some information about this system can be gathered. First, the sum of hits in February was 115,115 (4,000/day) and total transfer 66.17 Gbyte (2.36 GB/day). Second, total unique visitor reach approximately 11,620/day. The data and its implementation has shown that OSS is very reliable because it can handle large data and ensure high performance access of the system.

6 IGOS

Use of Open Source Software in the implementation of ICT is very important for several reasons:

• Efficient and Effective;

• Implementing Open Standards that facilitate the exchange of digital data

• Stable and Safe

• Community-based Support

• Custom Build Software
• Increased Local Software Industry to Implement ICT

The government provides support for the implementation of OSS in e-Government by:

• The continuous step with the remains on target orientation

• Good support by the government with providing examples of possible use of OSS in government agencies, using legal software included with the OSS

• The approach does not require for all implementations (no bias), but provide encouragement for the broader use of OSS

• Engagement with all stakeholders and the IT community in the implementation of the program.

This was shown by the application of open source applications in several areas as shown in table 1. Some examples of OSS aplikasi frequently and has been used, among others:

• Desktop Application: Operating System (Linux), Office Application (Open Office), Graphics/Multimedia (Gimp, Blender),

• Statistic Application: R-statistik,

• GIS: MapServer, GRASS

• Programming: PHP, GCC, Fortran, Java, Phyton, dll

• Server: Database, Web, Mail, Virtualisasi, DNS, Proxy

7 Roadmap and Adoption Strategy

Today, e-government is implemented broadly by the government in order to improve the quality of government services to the community. Definition of e-government itself is the "Utilization and Implementation of ICT by the Government for the provision of information and public administration services for the community". The success of e-government is determined based on the quality and the presence of administrative services, especially those that provide the overall transaction process. E-government has a goal: to provide an efficient government information, provide better service to the community, and strengthen communities through access to information and participation in public decision making; integrate "Businesses, Citizens, Employees" (G2G, G2B, G2C, G2E.) To implement a successful e-government needs to consider several factors namely human resources,

Based on the draft design of the implementation of e-government in Indonesia is that the information system is one of the very basic needs in an environment in government agencies, especially in Ministry of Youth and Sports. This is very useful to improve the efficiency, effectiveness, transparency and accountability of governance in Ministry of Youth and Sports. To create a good e-government in need of several interrelated components to each other as the application of information technology, information technology network infrastructure, interoperability of information systems and security of information systems. Implementation of e-government can be done through partnerships with central and local government. The partnership also should be established between central government and local business entities. If this situation happened, this will increase local competitiveness.

The development of e-government paradigm can be divided into two: general and specific application. The application can be provided directly by the instance itself, while specific applications can be developed by each Central Government and the Regions in accordance with duties and functions with the approval of the Minister. E-government application code should be open-code (open source). E-government itself has been widely implemented in some countries as shown in the table 7.

In developing the information system on the Ministry of Youth and Sports it is necessary to note some of the foundation and legal aspects, among them such as:

• Using the software is legal. This is in accordance with the implementation of UU HAKI and the letter from MenPAN 01/2009

• Preferences will be given using Open Source
<table>
<thead>
<tr>
<th>No.</th>
<th>Country</th>
<th>E.Governments Readiness Ranking</th>
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</tbody>
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Table 2: ICT Readline Index

software when there is Open Source software that can meet those needs, in line with the agreement as well as five ministerial mentioned in the letter of MenPAN IGOS

- The files are provided to the public is provided in a format that is not tied to one type of proprietary applications.

In considering a license that is used in Ministry of Youth and Sports environment, some of these rules may be taken into consideration:

- The letter from MenPAN about Legal Use of Software in the OSS
- IGOS
- Law No. 14 of 2008 on Public Disclosure

8 Experience and difficulties

When implementing OSS technology adoption, there are some things that become obstacles in this program. The biggest obstacle is time adaptation of Menpora employees in the use of OSS technology and the need to socialize more often in order to promote it. Nevertheless there is a high support from the Ministry of Youth and Sports also the staff in this program. This situation become the biggest motivation in the adoption of OSS in Menpora.

9 Conclusion

By applying the necessary of ICT environment that supports ICT and in accordance with the provisions.

Ministry of Youth and Sports very concerned about it so decided to use OSS as a technology. The application has been proved by the application of OSS in the portal. Based on those facts, OSS technology is not inferior to proprietary software. Nevertheless there are still obstacles in its application. The biggest obstacle is time adaptation needed by Menpora employees in the use of OSS technology. Problems that arise in the implementation of OSS can be resolved with high support from the Ministry of Youth and Sports as well as all the staff of Ministry of Youth and Sports.

References