

GLOBAL JOURNAL OF ENGINEERING SCIENCE AND RESEARCHES FREE AND OPEN SOURCE SOFTWARE MOVEMENT INDIAN AND WORLD SCENARIO

Sushil Kumar^{*1}, Dr. Rajiv Mahajan² & Dr. Sumesh Sood³

^{*1}Department of Research, Inder Kumar Gujral P.T.U, Kapurthala, Punjab, India

²Department of Computer Sc. and Engg, Golden College of Engineering and Technology, Gurdaspur

³Department of Computer Applications, I.K.G.P.T.U Dinanagar Campus, Punjab, India

ABSTRACT

The free and open source software and its adoption is a worldover movement. Here India is also a part. Govt of India is also trying for its adoption in various spheres of life. However India is successful but partially as many countries are ahead to India. However if strategy for the same is updated time and again India will also lead the world in this movement.

I. INTRODUCTION

FOSS that is 'Free and Open Source Software'. FOSS allows a person the freedom to use the software. This software is licensed under an open source agreement. That person may use the software as it is or may make changes as required. [1] Free software is a matter of the users' freedom to run, copy, distribute, study, change and improve the software.[2]Richard Stallman is the philosopher king of software. He single-handedly ignited what has become a world-wide movement to create software that is Free, with a capital F. He has toiled for years at a project that many once considered a fool's errand, and now that is widely seen as "inevitable." —Simon L. Garfinkel, computer science author and columnist.[2]

The first thing our PM said at the Digital India event in 2015 in Silicon Valley, "The most fundamental debate for our youth is the choice between Android, iOS or Windows." This debate is between FOSS and proprietary software.

II. WORLD SCENARIO

FOSS movement in the world is not new but very old. It may be said to start from LINUX in because when Linus Torvald started writing LINUX kernel, he appealed to all the developers of the world to contribute in it[3]. Many nations of world has adopted foss in many sectors but in India it is taking speed now. As we know that new thinking of Linus Torvald in shape of Linux has shaken the world's even most financially sound companies like Microsoft and others

Many countries which have already gone through the process of foss adoption are European Commission, Germany, France, United Kingdom, Spain, The United States, South America, And China, Taiwan, Africa . Tanzania, Uganda, Ghana, Kenya, Ethiopia, Nigeria, Botswana, and Zambia are also moving towards FOSS[3].

The Free Software Foundation that is FSF is a no profit organisation with a worldwide mission to promote computer user freedom and to defend the rights of all free software users. The FSF whose headquarters is in Boston, Massachusetts, USA, is a tax-exempt charity for free software development.[4]

III. INDIAN SCENARIO

It is a feather in cap of govt. of indian that they are moving very fastly in this direction. Govt of india in 2013 (and its more elaborated updated version in 2015) has issued policy on FOSS adoption in form of Framework on Open Source Software Adoption in e-Governance Systems through Ministry of Communications and Information Technology -

Department of Electronics and Information Technology . This document throws light on overall scenario of foss in world as well as in india. Firstly it discusses the FOSS adoption in various states of India like kerala, Haryana, Tamilnadu,Uttranchal, West Bengal, Pondichery, Assam etc and also provides various detailed criteria upon which Proprietary softwares should be checked against New FOSS. This document also provides various criteria upon which FOSS should be checked for SWOT (strengths,Weaknesses, oppurtunities and threats)analysis. Many other departments of India which are playing a good role in increasing foss adoption in India and also some of them are developing new foss which are very much useful in comparison to their equivalent proprietary softwares. These departments are DIELIT i.e. Department of Electronics and Information Technology, NRCFOSS i.e. National Resource Centre for Free and Open Source softwares, consortium of CDAC i.e Centre for Development of Advance Computing, Anna University (AU-KBC Research Centre) and IIT Bombay,IIT Madras.[5]

Some of the softwares which have been developed in India by govt institutions listed above are BOSS (Bharat operating system solutions) which have six versions : Tarang, Anant, Tejas, Savir, Anokha and Anoop, Meghdoot CDAC cloud initiative, EduBOSS – Educational variant of BOSS 3. BOSS Server 4. Meghdoot 5. Swar-Suchak 6. GEM – GESTures with Mouse 7. Anumaan 8.ALViC – Accessible Linux for Visually Challenged 9. ILMS – Integrated Library Management System and many others.

In many countries of world open source software development has been a good topic of research. And vast research has been conducted in this area of software engineering. Same is catching momentum in India also.

The pace of software development in this area is very fast in world. Such pace is being also imitated in India by many centres of govt. listed above. In India Anna University has launched Course on M. Sc. in Open source software category. If we leave other aspects as a topic of research on regional basis but it is sure that Free and open source softwares are more cost effective as compared to proprietary softwares. As the finance is the one of the most important issue for large number of the countries therefore it is not a bad choice to prefer free and open source softwares in comparison to others. But a case study must be performed which may include comparison between two categories for specific needs of organization and swot analysis can also be carried out.

The Supreme Court of India has ordered all courts across India to switch to Ubuntu an open source operating system.

In India the Free and open source software category has become a part of syllabus of a large number of universities and CBSE schools which shows a willpower of academician for widespread use and adoption and awareness of this ideology.

The Free Software Foundation of India (FSF India), the official Indian equivalent of the FSF, was formally inaugurated by Richard Stallman at the *Freedom First!* Conference at Thiruvananthapuram, Kerala on 20 July 2001. [6]

IV. CONCLUSION

India is on its way in FOSS and its adoption. If updation in FOSS like BOSS are done as per the Indian users' requirements, The pace of adoption can increase.

REFERENCES

1. <http://nrcfoss.org.in/resources/facts-about-foss>
2. "Free Software, Free Society Selected Essays" Second Edition book by Richard M. Stallman
3. "Use Of Free/Open Source Software By Indian Organisations – A Preliminary Study And Its Findings" Ph. D thesis of Sanjiv Kumar Saini.
4. <http://www.fsf.org/>
5. *Framework For Adoption of Open Source Software In e-Governance Systems April 2015*
6. <http://fsf.org.in/>