

FOSS IMPLEMENTATION OF AN EDUCATIONAL VIRTUAL OFFICE SUITE

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Abstract

Academic institutions and research organisations are fast becoming very corporate in the design and setup of the workspace. There is an ever-present need for readily available information and sophisticated means of communication. As a result, information and communication technologies are being deployed for application in various fields of endeavour some of which include virtual offices. A virtual office is essentially a simulated corporate environment that gives subscribers access to collaborative work related features, which act as a means of improving the way work is carried out in an organisation. Several organisations opt for the software services rendered by virtual offices because of their cost effectiveness and tendency to boost the collective productivity of these organisations. For reasons as such, the existence of virtual office software suites have become rampant, but the availability of its services are at a cost. This paper reports the design and implementation of an Educational Virtual Office using *Free and Open-Source Software* (FOSS) to relieve corporate organisations of the costly burdens of existing proprietary virtual office software. Tools used in achieving this feat are Drupal Web Content Management System (WCMS), readily available FOSS and a couple of other freeware, intelligently integrated to form a composite suite.

The developed educational virtual office suite was deployed in the Department of Electrical and Information Engineering of Covenant University. A usability (user satisfaction) test was conducted. Analysis of the test results showed that questions related to user satisfaction scored more "Strongly Agree" and "Agree" points than "Disagree" and "Strongly Disagree". This is a pointer to the fact that features such as the GUI of the web application and its navigation proved to have little or no challenges as at when the tests were carried out. Deployment of the developed educational virtual office suite has the significant advantage of low cost in comparison with proprietary virtual office suites with similar functionality. The fact that the suite was developed entirely using FOSS gives it all the attendant advantages that accrue from the employment of same from the system design bottom-Up. Such advantages as easy access to source code, which engenders easy upgrade of the component parts, come naturally.

Keywords: FOSS, Virtual Office, Drupal Web Content Management System (WCMS).

1 INTRODUCTION

1.1 Overview

In today's world, fast growing organizations have the tendency to want to expand the frontier of their services to other parts of the world. This may not only include regions in which they were initially set up, but also, the same state, country, continent and possibly, other continents also. As some organizations deem it fit, they may setup more than one branch office in a particular location so as to make attempts to satisfy the needs of the ever-growing population in that region. As these companies grow, the need to communicate also increases with respect to their growth margin even as they establish branch offices to suit the needs of their target populace. In this sense, it is obvious that there is an urgent need for organizations in such category to employ a means of communication that is readily available, dependable, flexible and easily deployable as their branch offices will also be opting for this solution.

The "virtual office" concept, if properly traced back, can be linked to Ralph Gregory, the founder of the company, *Intelligence Office* [1]. Established in the early '90s, the desire of the then new father to spend more time at home and less at work, but still be as proficient as when at work led to the establishment of the new business concept that could allow him to tap into the services available at his place of work [2]. As at this writing, several companies such as Compaq, Procter & Gamble, Hewlett-Packard, AT&T, IBM, etc. have in one way, completely adopted the use of virtual offices to manage