

Chapter 4.11

The Migration of Public Administrations Towards Open Source Desktop Software: Recommendations from Research and Validation through a Case Study

Kris Ven

University of Antwerp, Belgium

Dieter Van Nuffel

University of Antwerp, Belgium

Jan Verelst

University of Antwerp, Belgium

ABSTRACT

Several public administrations (PA) have expressed an increasing interest in open source software in the past few years and are currently migrating to open source software on the desktop. Given the large impact such a migration has on the organization, there is a need for learning from the experiences of previous migrations. In this chapter, we deduct a number of recommendations and lessons learned from previous research conducted

on the migration of PAs to open source desktop software. Next, we describe a case study on the migration of the Brussels-Capital Region towards OpenOffice.org, and compare their experiences to these recommendations. In general, our results are quite consistent with previous findings, but also indicate that additional research is still required in order to create a set of best practices—based on empirical research—for the migration towards open source software on the desktop.

INTRODUCTION

In the past few years, open source software has become a viable solution for organizations, and is being increasingly adopted. This increased popularity has been enabled by the fact that open source vendors (e.g., RedHat and SUSE) and traditional software vendors (e.g., IBM and HP) provide reliable support for open source solutions. Studies indicate, however, that organizations are primarily using open source software for server applications (see e.g., Dedrick & West, 2003; Lundell, Lings, & Lindqvist, 2006; Ven & Verelst, 2006; Wichmann, 2002). This can be explained by at least two factors. First, open source software has a strong tradition in developing server-side applications. Given this background, most open source projects are situated in horizontal domains such as Internet applications, developer tools, and technical tools (Fitzgerald, 2005). Thanks to the maturity level of most well-known open source server software (e.g., Apache and Linux), these packages are widely diffused through organizations. Successful open source software for the desktop has surfaced only recently with applications such as OpenOffice.org, Mozilla Firefox, and Mozilla Thunderbird. Second, a migration towards open source software on servers is far less disruptive for members of an organization than a migration at the desktop. In case a Web server running Microsoft IIS is replaced by the Apache Web server, or the operating system for an ERP system is changed from Unix to Linux, end users in the organization will not (or hardly) be affected by this change. A migration from Microsoft Office to OpenOffice.org will, however, affect all end users in an organization, possibly even impacting productivity.

Recently, there has been an increased interest in migrations towards open source software on the desktop. Interestingly, this trend is primarily driven by public administrations (PA). In fact, PAs can be considered pioneers in the adoption of open source desktop software. At first sight,

this is actually quite remarkable. In the past, it was frequently assumed that PAs are restricted by their organizational structure, and thus limited in their innovative behavior (Nye, 1999; Moon & Bretschneider, 2002). Other studies have found PAs to be surprisingly innovative with respect to certain innovations (Bretschneider & Wittmer, 1993; Moon & Bretschneider, 2002). The use of information technology is currently considered to be an opportunity for PAs to improve their efficiency, as illustrated by the large number of recent e-government initiatives. There are two important drivers for the adoption of open source desktop software in PAs. First, it has been suggested that PAs should be conscious of their IT expenses, to make efficient use of taxpayers' money (see e.g., Applewhite, 2003; Brink, Roos, Weller, & van Belle, 2006; Fitzgerald & Kenny, 2003; Waring & Maddocks, 2005). Since the license costs for open source software are either absent or at least lower than for proprietary software, open source software has often been touted as a means for reducing overall software expenses. Since the number of desktop licenses is far greater than the number of server licenses, cost savings on the desktop may be considerably larger. Second, some authors argue that PAs should use open standards in their communication with citizens, to avoid that citizens need to buy a commercial product for communicating with the PA (see e.g., Applewhite, 2003; Kovács, Drozdik, Zuliani, & Succi, 2004b; Rossi, Scotto, Sillitti, & Succi, 2005). Other reasons for the adoption of open source software by PAs include supporting the local economy, increased flexibility and avoiding vendor lock-in (see e.g., Drozdik, Kovács, & Kochis, 2005; Kovács et al., 2004b; tOSSad, 2006; Waring & Maddocks, 2005).

Notwithstanding the advantages that open source software can offer, the migration towards open source software on the desktop will be disruptive for most users within a PA. Hence, special attention should be paid to planning the migration in order to minimize discomfort and disruptions

16 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/migration-public-administrations-towards-open/29464

Related Content

A Two-Level Multi-Modal Analysis for Depression Detection From Online Social Media

Dhrubasish Sarkar, Piyush Kumar, Poulomi Samanta, Suchandra Dutta and Moumita Chatterjee (2022). *International Journal of Software Innovation* (pp. 1-22).

www.irma-international.org/article/a-two-level-multi-modal-analysis-for-depression-detection-from-online-social-media/309114

Performance Analysis of a Web Server

Jijun Lu and Swapna S. Gokhale (2009). *Software Applications: Concepts, Methodologies, Tools, and Applications* (pp. 366-379).

www.irma-international.org/chapter/performance-analysis-web-server/29397

Building a Self-Sustaining World: How AI and Self-Sustaining Systems Converge

Prithi Samuel, Reshmy A. K., Sudha Rajesh and Karthika R. A. (2024). *The Convergence of Self-Sustaining Systems With AI and IoT* (pp. 85-103).

www.irma-international.org/chapter/building-a-self-sustaining-world/345507

Mobile Learning Usage of LIS Students in Mainland China

Tsz Ying Law, Fanny C. W. Leung, Dickson K. W. Chiu, Patrick Lo, Mavis Man-Wai Lung, Qingshan Zhou, Yang Xu, Yang Lu and Kevin K. W. Ho (2019). *International Journal of Systems and Service-Oriented Engineering* (pp. 12-34).

www.irma-international.org/article/mobile-learning-usage-of-lis-students-in-mainland-china/256134

Trust Based Interdependency Weighting for On-Line Risk Monitoring in Interdependent Critical Infrastructures

Filipe Caldeira, Thomas Schaberreiter, Sébastien Varrette, Edmundo Monteiro, Paulo Simões, Pascal Bouvry and Djamel Khadraoui (2013). *International Journal of Secure Software Engineering* (pp. 47-69).

www.irma-international.org/article/trust-based-interdependency-weighting-for-on-line-risk-monitoring-in-interdependent-critical-infrastructures/101892