



Linux and Windows in the web hosting industry

An insight in how the operating system affects costs

Introduction

This study looks into how the distribution of costs changes within the web hosting industry as a result of changing the operating system.

The internet plays an increasingly large role in society. Many seem to take it as granted that they can access all websites they wish to use any time of the day. However, in order to access a website, a user's computer connects to another computer somewhere in the network. These contactable computers have been centralised to *web servers*, which are computers that are capable of handling many simultaneous website requests.

Firms offering these web server services belong to the *web hosting industry*.

For running these servers, an *operating system*, which is a program that controls the hardware and allows the user and various applications to use it, is needed.

Two of the most commonly used computer operating systems today are *Microsoft Windows* and *Linux*.

Today, the costs and benefits related to the choice of the operating system are hotly debated. Disagreement about the value of analyses made has arisen due to financing received and the neglect of major factors affecting the costs.

Aim

The aim of this study is to derive an at least indicative answer to the question of whether it is Microsoft Windows or Linux that should be used on web hosting servers in order to *optimise* a firm's *allocative efficiency*.

Allocative efficiency is optimised when resources are channelled to their most productive uses.

Method

The data retrieved from a questionnaire filled in by a sample of firms is used to analyse how the migration affects costs.

A message was sent to an internet forum whose members constitute of people related to the web hosting industry. The management staff of firms whose representatives read the message were encouraged to fill in an online questionnaire.

The participants were asked whether the change of their server operating system had affected any of the cost factors which were included in the hypothesis. Also, rough percentage estimations of the total increase or decrease of the factors were included in the optional part of the questionnaire.

Results

Migration from Windows to Linux

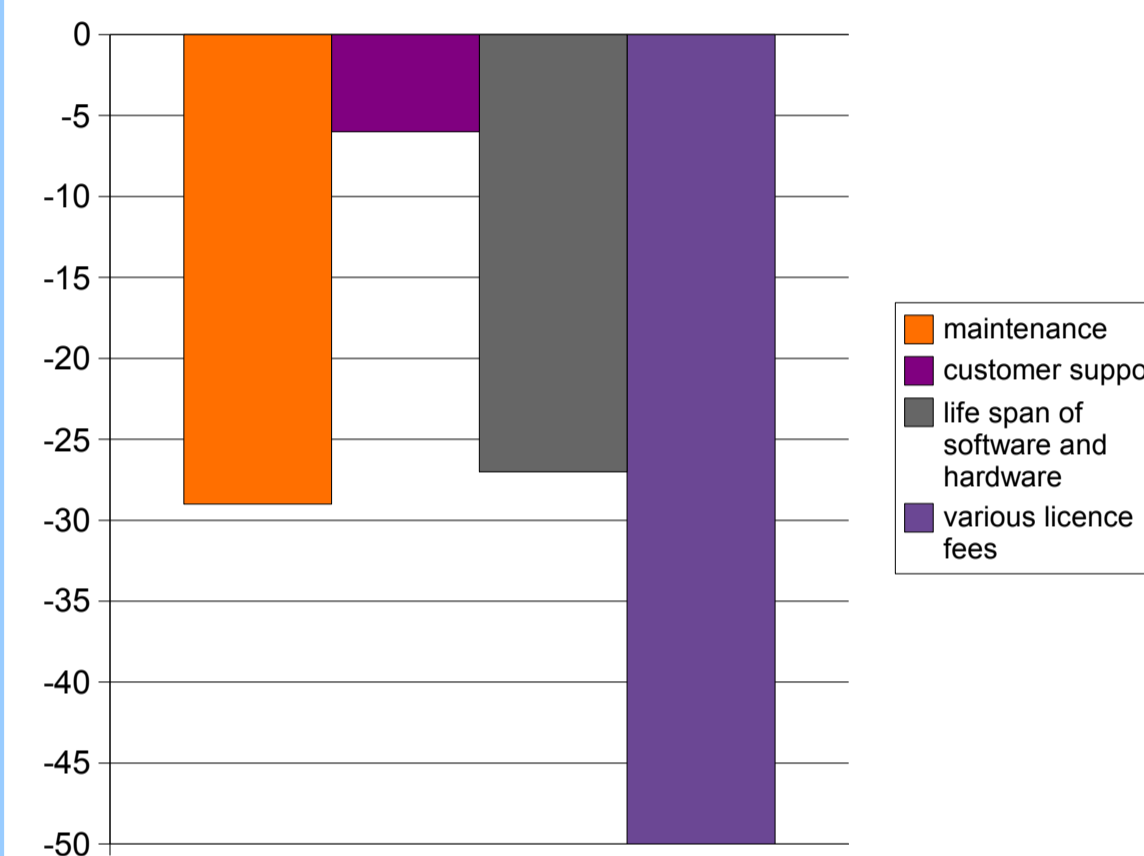


Figure 1. The figure shows how the costs of maintenance, customer support, life span and licence fees were affected by the change to Linux. The values are in percentages.

Migration from Linux to Windows

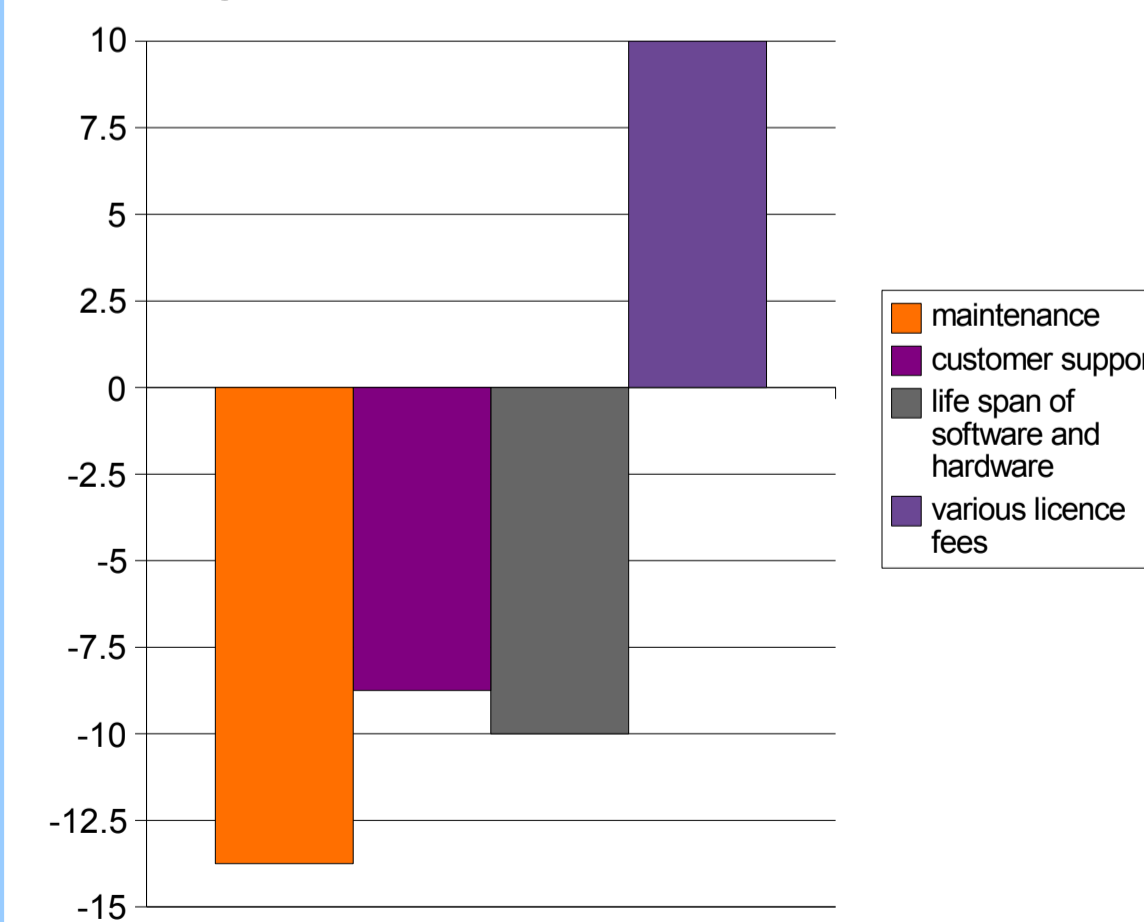


Figure 2. The figure shows how the costs of maintenance, customer support, life span and licence fees were affected by the change to Windows. The values are in percentages.

Conclusion

The results reveal that if the firm is large enough, a mixture of servers with both operating systems may be most effective, instead of relying fully on only one system.

Running both operating systems simultaneously allows the firms to offer their customers a wider range of software support. However, for smaller web hosting firms Linux may be a more viable option from the perspective of allocative efficiency. The start-up costs are much lower since there are no licence fees. At the same time, the variable costs of management stay quite low due to the firm's size.

The results may, to some extent, be applicable to other industries as well. However, the main focus of the investigation was on the web hosting industry.

Acknowledgements

Webhostingtalk.com forum's maintainer, iNET Interactive, for allowing me to use their member base for this research.

Simon Wallen, my supervisor, as well as to Klaus Pfister and Mikael Eriksson, for all their constructive comments.