

# **COSTS COMPARISON OF STAROFFICE 9, OPENOFFICE.ORG 3.X AND MICROSOFT OFFICE 2007**

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## Executive Summary

There has been a significant interest in a costs or total cost of ownership (TCO) comparison between StarOffice™ 9 Enterprise Edition, OpenOffice.org 3.x and Microsoft Office 2007. This document compares the costs between StarOffice, OpenOffice.org and Microsoft Office by analyzing an organization with 1,000 desktops with a typical number of documents and Microsoft Office macros.

The cost of a StarOffice license is typically just 20% of a Microsoft Office one and OpenOffice.org is offered free of charge but it is not enough to compare just the license costs. There are three other broad, important costs that need to be considered:

1. IT Infrastructure Costs – these include licensing, hardware, operating system, application integration, document analysis costs
2. Costs of Training and Support, including help-desk costs
3. Migration and Installation Costs – these include installation and migration of an organization's Microsoft Office documents, templates and MS Office macros.

The conclusion of this report is that StarOffice and OpenOffice.org yielded a cost savings of 48% over Microsoft Office over a period of 3 years. Key findings include:

Licensing – StarOffice and OpenOffice.org have significantly lower (up to 80%) licensing costs than Microsoft Office.

Maintenance costs – Maintenance costs are lower for StarOffice and Microsoft Office because of product updates and patches. In contrast to OpenOffice.org which is available as installation set only. The StarOffice product updates are easy to distribute through the software deployment systems. This results a 60% lower maintenance costs as for OpenOffice.org.

First time the costs for trainings of Microsoft Office are the same as for StarOffice/OpenOffice.org because of the new user interface.

Migrating to a new office suite requires a migration of the old documents and templates. The estimated costs for the migration are less than \$11,000 for a company with 50,000 Microsoft Office documents.

The overall costs for StarOffice and OpenOffice.org are identical despite the no-charge licensing costs of OpenOffice.org. The higher system administration and support costs for OpenOffice.org negates the zero license costs.

StarOffice and OpenOffice.org delivered a potential cost savings relative to Microsoft Office of 46 % or \$885,000 USD per 1000 desktops over a three-year time period. This study has also shown that the costs for OpenOffice.org or StarOffice migration are very similar. The Professional Analysis Wizard and Product Updates effectively make up for the zero licensing costs of OpenOffice.org. In addition StarOffice users can receive indemnification from Sun which can make it even less risky relative to OpenOffice.org.

Customers should use this document as a framework when evaluating the benefits and costs of moving to StarOffice or OpenOffice.org. The assumptions were taken from real cases but customers should enter their own numbers specific to their organization and environment .

## Introduction

The intention of this whitepaper is to show the potential cost savings of StarOffice and OpenOffice.org over Microsoft Office. It analyzes the costs (licensing, hardware, operating system, document conversion, training etc.) of Microsoft Office 2007, StarOffice 9 and OpenOffice.org 3.x. There are a large number of open source TCO studies available. Most of them do not cover office suite costs explicitly making the comparison between office suites difficult. The main focus of this paper is a direct cost comparison of an office suite deployment. (The second Appendix provides a list of freely available studies.)

Comparing the licensing costs is the first step but there are other costs to consider when comparing office suites. An office productivity suite is an essential part of the company workflow, a transition to a different office suite requires a well managed migration project. This research is based on our experiences with real customer data and assumes migration of a typical company with 1,000 desktops.

This document is segmented into four chapters. Each chapter covers an important part of the migration and compares the costs between StarOffice, OpenOffice.org and Microsoft Office. Areas of comparison include:

- Costs for updating the IT infrastructure
- Comparing the costs for training and support
- Document and macro migration and installation costs.

The last chapter aggregates the costs laid out in the previous chapters and presents a conclusion.

A brief definition of the products used in this comparison:

1. OpenOffice.org 3.x – this is the core functionality product, sometimes referred to in this document as just OpenOffice.org.
2. StarOffice 9 Standard Edition – Feature equivalent to OpenOffice.org 3.0 and adds a 60-day support, designed templates; sample files and clipart
3. StarOffice 9 Enterprise Edition – this includes the features of StarOffice 9 Standard Edition and adds the Professional Analysis Wizard and StarOffice Transformation Wizard. This version is the one used in this document.
4. Microsoft Office 2007 Professional – This version of MS Office has Microsoft Word, Microsoft Outlook with Business Contact Manager, Microsoft Excel, Microsoft Access, Microsoft PowerPoint, Microsoft Publisher, Microsoft Accounting Express. Sometimes referred to as just Microsoft Office.

## Chapter 1

## IT Infrastructure Costs

### Licensing Costs of Office Suites

Licensing costs of Microsoft Office are generally very high. Here StarOffice and OpenOffice.org have a huge cost advantage. StarOffice 9 and OpenOffice.org 3.x share the same binaries. In addition to indemnification, StarOffice 9 provides the following features not found in OpenOffice.org 3.x: Professional Analysis Wizard and StarOffice Transformation Wizard for creating MS Installer Transformation files to install customized StarOffice installations through a software deployment system.

The costs advantage for StarOffice can be even higher for users with more than one workstation or notebook. StarOffice licensing allows up to five StarOffice installations per user while Microsoft charges extra license fees for additional machines belonging to the same user. For this scenario, we have not assumed any extra licensing fees for additional machines that need Microsoft Office 2007.

As an example, current StarOffice customer, Bristol City Council saved £1.3M (\$USD1.9M) by switching 5500 desktops to StarOffice. The municipal administration of Katowice<sup>1</sup> has saved \$USD132,000 (€100,000) on licensing for 350 computers. Accordingly to a report of the Copenhagen Business School<sup>1</sup>, moving to SO/OOo reduced the software costs of the local Faroese hospital 'Klaksvik' by 24%, and the national hospital by 67% and they forecast cost savings of up to 91% by moving the entire public sector onto SO/OOo.. The TCO report of Rambøll managements<sup>1</sup> predicts a cost saving for the Danish government of \$USD39,8M (DKK 225M) (since this is a prediction, move to appendix). The following table summarizes the licensing costs of the office suites.

	StarOffice 9 <sup>2</sup>	OpenOffice.org 3.x	Microsoft Office 2007
Single license	\$66	\$0	\$350
1000 licenses	\$66.000,00	\$0,00	\$350.000,00
Microsoft Software Assurance Program for Office 2007. [Optional] 29% of initial purchase price per year. (For a 3 year period)	N/A	N/A	\$304.500,00
<b>Subtotal Office License (over three year period)</b>	<b>\$66.000,00</b>	<b>\$0,00</b>	<b>\$654.500,00</b>

Table 1: Licensing costs for office productivity suites.

### Hardware Upgrade Costs

Companies typically upgrade their desktop hardware every 3 to 5 years. These upgrades are usually accompanied by an upgrade of a new operating system as well. This can be an opportunity to save money and improve reliability and security by replacing Windows with Solaris or Linux operating systems instead. StarOffice runs on Solaris and Linux as well as it does on Windows.

<sup>1</sup> See Appendix 2 for a list of freely available Linux TCO studies

<sup>2</sup> User based license. Each user could install StarOffice 8 on five (5) different machines. Microsoft charges approximately and additional \$200 for a 'work at home' license per user.

The table compares hardware upgrade costs needed or highly recommended for StarOffice, OpenOffice.org and Microsoft Office. Our representative organization has 1,000 PCs of which 300 over five years old and needs to be replaced.

Assumptions	StarOffice 9	OpenOffice.org 3.x	Microsoft Office 2007
Total number of Workstations : <b>1000</b> <b>300</b> are older than 5 years and needs to be replaced.	300	300	300
Update costs per unit : \$ <b>1500</b>	\$450.000,00	\$450.000,00	\$450.000,00
<b>Subtotal Hardware</b>	<b>\$450.000,00</b>	<b>\$450.000,00</b>	<b>\$450.000,00</b>

Table 2: Hardware upgrade costs

## Operating System Costs

That being said, migrating to a new office productivity suite is a good opportunity to re-think the platform decision. Several<sup>3</sup> TCO studies have shown the potential of significant costs savings of a migration to a more reliable and secure Solaris or Linux platform. Examples include the [FLOSS deployment in Extremadura, Spain](#) which deployed Open Source Software on 40,000+ desktops and saved 30 Million Euro and [Beaumont Hospital Dublin](#), which saved more than \$8USD million in 5 years. There are other TCO studies that analyze the migration efforts from Windows to UNIX®. You can find those in Appendix 2. This whitepaper is not intended to be a TCO study between Solaris/Linux and Windows. The migration of mail servers, databases, and other software solutions that would be involved in such a TCO are not covered here.

The table below compares the operating system costs between Windows, Solaris and Linux. The external consulting row represents the numerous and varied companies on the market that provide consulting services for a migration from Windows to Solaris/Linux. They create a migration road map, provide training for administrators and offer other services that would not be typically provided by the organization's IT staff. Those services are typically not necessary for a Windows upgrade.

<sup>3</sup> See Appendix 2 for a list of freely available Linux TCO studies

	OpenSolaris Sparc/x86	Linux	Windows Vista Professional
License fee per user	\$ 0	\$0	\$250,00
Total number of Workstations : <b>1000</b>	\$0,00	\$0.00	\$250.000,00
Microsoft Software Assurance Program for Workstations. [Optional] 29% of initial purchase price per year. (For a 3 year period)	N/A	N/A	\$217.500,00
External Consulting (For a 3 year period)	\$60,000.00	\$60.000,00	\$0,00
<b>Subtotal Operating Systems</b>	<b>\$0,00</b>	<b>\$60.000,00</b>	<b>\$467.500,00</b>

Table 3: Operation system upgrade costs

### Costs of Integrating Office Suites with Related Applications

There are most likely software solutions in an organization or business that interact with the existing office suite. For those applications it is necessary to find an equivalent solution that works with StarOffice or OpenOffice.org. Table 4 shows the costs associated with replacing or modifying applications that worked with a previous version of Microsoft Office when the organization moves to a new office suite. Note that even if they upgrade to Microsoft Office 2007, they will incur some integration costs. The table shows the four main steps involved with the integration effort and their associated costs:

First, create a list of applications that work with the current version of Microsoft Office.

Then determine whether there needs to be alternatives to the existing applications or if the existing applications can still be used but need modification. If alternatives, evaluate them to select the optimal one.

Third, verify the integration, on a pilot basis, with the new office suites.

Lastly, install the new applications or modify the existing ones at a departmental or organizational level.

The exact costs depends strongly on the replacement application. The migration effort could be higher if an equivalent application is not available. Note that while StarOffice is appropriate for most environments, there may be a few cases where re-integrating existing applications with StarOffice is not suitable.

Assumptions	StarOffice 9	OpenOffice.org 3.x	Microsoft Office 2007
Create a list of applications that work with Microsoft Office 2007 (8 hours)	\$446,80	\$446,80	\$425,52
Evaluate (OSS) alternatives for StarOffice/OpenOffice.org (Senior: 20 hours) (Mid-level: 20 hours)	\$1.904,20	\$1.904,20	\$0,00
Verify the integration with Office 2007 (5 hours)	\$0.00	\$0.00	\$183,50
Installation of the alternative OSS applications + data migration : (320 hours) or update of existing application (16 hours)	\$12.595,20	\$12.595,20	\$587,20
<b>Subtotal Applications analysis</b>	<b>\$14.946,20</b>	<b>\$14.946,20</b>	<b>\$1.196,22</b>

Table 4: Costs of integrating applications with the office suites

## Document Analysis Costs

The import and export filter for Microsoft Office documents contained in StarOffice 9/OpenOffice.org 3.x will import the majority of the documents without any issues but occasionally, some documents do not look exactly like they did in Microsoft Office. To make migrating from Microsoft Office as smooth as possible, an analysis of the existing Microsoft Office files is highly recommended. The Professional Document Analysis Wizard is designed to find and analyze these documents. It determines also the number of macros and estimates the effort of the document migration. The Wizard is part of the Enterprise Edition of StarOffice 9 and not available with OpenOffice.org 3.x.

OpenOffice.org users have to authorize a migration partner to do such an evaluation. This takes approximately a week (~ \$USD4.000,00). The costs of converting these documents are discussed in Chapter 3: Migration and Installation Costs.

The import and export of old documents of Office 2007 is good enough for daily tasks, there is no need for analyzing documents, the few minor glitches can be fixed by the users.

	StarOffice 9	OpenOffice.org 3.x	Microsoft Office 2007
Document Analysis with the Professional Analysis Wizard (16 hours)	\$893,60	N/A	N/A
Document Analysis by a Migration Partner	\$0,00	\$4.000,00	\$0,00
<b>Subtotal Document Analysis</b>	<b>\$893,60</b>	<b>\$4.000,00</b>	<b>\$0,00</b>

Table 5: Costs of analyzing Microsoft Office documents

## Chapter 2

## Costs for Training and Support

### Support contracts

Both Sun and Microsoft offer support contracts for their respective products . (Note that Sun also offers support for OpenOffice.org.) The support engineers are highly professional and are very close to the StarOffice/OpenOffice.org engineering team. A large number of service providers also offer support for OpenOffice.org but the costs and service levels vary between the vendors.

A complete list is available on : <http://bizdev.openoffice.org/consultants.html>

Microsoft has changed their support offering for SMBs to a pre-paid hourly based support packages. The customer buys a package of 30 problem solving hours upfront. As a contrast,Sun's support offering consists an unlimited number of hours.

	StarOffice 9	OpenOffice.org 3.x	Microsoft Office 2007
Standard (per annum) (unlimited number of problem solving hours)	\$13.840,00	\$20.520,00	N/A
Essential <sup>4</sup> Package Level 1 up to 30 hours problem solving support	N/A	N/A	\$14,499.00
StarOffice 9 Subscription (per annum) (License and Support) (unlimited number of problem solving hours)	\$24.500,00	N/A	N/A
Pay per incident	N/A	N/A	\$99 - \$515

Table 6: Support costs for the office suites.

### Help Desk costs

The StarOffice 8 software and Microsoft Office user interfaces are similar. Usability studies have shown that half day training is sufficient for an entry-level user. Those trainings also have the advantage of reducing the number of support calls associated with deploying a new office suite.

However Microsoft has changed the user interface significantly in Office 2007 and , the way a user works with MS Office 2007 has also changed. This will cause a higher number of help desk calls.

<sup>4</sup> Microsoft Essential support : [http://www.microsoft.com/services/microsoftservices/srv\\_esse.msp](http://www.microsoft.com/services/microsoftservices/srv_esse.msp)

## Training

Training is an important element to improve productivity. StarOffice and Microsoft Office are not that different that a retraining is absolutely required for entry-level users but our experience has shown that those are the type of users that would benefit from these trainings the most.

Training for knowledge and advanced users are recommended to reduce the time it takes to learn the new office suite and attain their previous levels of productivity. As an example, the [Province of Genova](#) provides an 8-hour training for their knowledge workers. The training costs incurred are more than offset by the benefit of more productive users. As an example, Bristol City Council created self-service online 'How To's', Computer Based Training and for key users of each application (~20% of all users), a ½ -day conversion course. The TCO study of the Klaksvig<sup>5</sup> Hospital includes training costs for OpenOffice.org/StarOffice and Office 2007.

Microsoft Office upgrades to Office 2007, with its completely new user interface, also require training to maintain existing levels of user productivity. The training required for an Entry Level user of Office 2007 could be even more than for StarOffice/OpenOffice.org.

Some definitions used in the table 7 :

<b>Entry-Level users</b>	Infrequent access to an office suite or uses the basic feature set with minimal complexity.
<b>Knowledge users</b>	Regular access to an office productivity suite. They perform medium to complex tasks.
<b>Power users</b>	Using a high level of macros, databases and a relatively high percentage of the feature set or a using features at a very deep and technical level.

Downtime costs are incurred when a user participates in training and can't attend their regular jobs. In addition, measures such as training courses usually have a positive motivation effect when they return to their jobs.. The next table summarizes the training costs.

	StarOffice 9	OpenOffice.org 3.X	Microsoft Office 2007
<b>Training afford Entry-Level user</b> Number of participants per course: 15 Costs per training day (room..) : \$ 800 Overall number of trainings days : 5	\$4.000,00	\$4.000,00	\$4.000,00
<b>Training afford knowledge user</b> Number of participants per course: 10 Costs per training day (room..) : \$ 800 Overall number of trainings days : 65/50	\$52.000,00	\$52.000,00	\$40.000,00
<b>Training afford power user</b> Number of participants per course: 10 Costs per training day (room..) : \$ 800 Overall number of trainings days : 40/20	\$32.000,00	\$32.000,00	\$16.000,00
<b>Training afford help desk engineers</b> Number of participants per course: 10 Costs per training day (room..) : \$ 800 Overall number of trainings days : 6/5	\$4.800,00	\$4.800,00	\$4.000,00
<b>Downtime costs of user base</b> Entry-level worker (0.5 day training) 15 % or 150 users Hourly rate : \$ 20	\$12.000,00	\$12.000,00	\$12.000,00

	StarOffice 9	OpenOffice.org 3.x	Microsoft Office 2007
<b>Downtime costs user base</b> Knowledge worker SO/OO.o, MSO 1 day training 65 % or 650 users Hourly rate : \$ 30	\$156.000,00	\$156.000,00	\$156.000,00
<b>Downtime costs user base</b> Power users SO/OO.o 2 days training MSO2007 1.5 day training ~20 % or 198 users Hourly rate : \$ 40	\$126.720,00	\$126.720,00	\$95.040,00
<b>Downtime costs user base</b> Help desk workers SO/OO.o 3 days training MSO2007 2.5 day training 2 user Hourly rate : \$ 40	\$1.920,00	\$1.920,00	\$1.600,00
<b>Subtotal Training costs</b>	<b>\$389.440,00</b>	<b>\$389.440,00</b>	<b>\$328.640,00</b>

Table 7: Training costs associated with the office suites

Another option is online training. E-learning can save money at companies with more than 1,000 desktops. Average cost to create an e-learning course is \$100,000. That is \$100 per user for a 1,000 user company. E-learning can also lower training costs and provide greater flexibility as users can take the courses whenever they have the time<sup>6</sup>.

6 Declaration of Independence: The LiMux Project in Munich:  
[http://www.osor.eu/case\\_studies/declaration-of-independence-the-limux-project-in-munich](http://www.osor.eu/case_studies/declaration-of-independence-the-limux-project-in-munich)

## Chapter 3

# Migration and Installation Costs

## Installation and Maintenance

There are several solutions on the market to install office suites through the network. These solutions take over the deployment of StarOffice, OpenOffice.org or Microsoft Office. StarOffice 9 and OpenOffice 3.x could be deployed by many of the existing Software Deployment Tools. We assume that the costs for setting up the deployment are the same for all office suites. As an example, Bristol City Council had deployment and maintenance costs for their 5,500 desktops of £10,000 (\$14,700).

We are estimating the costs of the initial deployment slightly higher for OpenOffice.org due to missing Transformation Wizards which creates Transformation files for customized installations. OpenOffice.org has to do this manually which takes 2 additional hours.

Sun provides quarterly product updates for StarOffice. The patches use the Windows patch technology which has the advantage that they can be deployed by a Windows software deployment system. OpenOffice.org get also updated four times a year but updates to OpenOffice.org cannot be installed incrementally (like in StarOffice), the entire suite has to be reinstalled. This causes an increase of up to 60% in maintenance costs.

The costs for administration tend to get underestimated. We calculated 10 minutes per year per user without using a central administration tool. However these tools are available in StarOffice, OpenOffice.org and Microsoft. The administration tool for StarOffice and OpenOffice.org get provided by 'Open Office Enterprise'<sup>7</sup>. It is based on the Microsoft Group Policy technology and requires an ActiveDirectory infrastructure. This reduces the costs for administration by up to 90%.

The Microsoft approach also is based on the Group Policies. This has the disadvantage that it requires an ActiveDirectory Server environment which further requires Windows 2003 servers making an Office 2007 possibly even more expensive, and we've assumed that an ActiveDirectory Server environment exists in our scenario. (The implementation of Central Configuration capabilities becomes very expensive when an Active Directory environment does not exist.)

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<sup>7</sup> Open Office Enterprise, Inc - <http://openofficetechnology.com/products/OpenOffice-Enterprise>

	StarOffice 9	OpenOffice.org 3.x	Microsoft Office 2007
Costs for deployment (20/22 hours)	\$787,20	\$865,92	\$734.00
Cost for deploying product update/patches (96 hours/3 years) (OO.o 240hours/3 years)	\$3,778.56	\$9,446.40	\$3,523.20
Administration costs <b>without</b> Central Configuration (10 min per user/year) (For period of 3 years)	\$14.895,00	\$14.895,00	\$14.360,00
License Costs Centralized Configuration for 3 years including support.	\$6.000,00	\$6.000,00	\$0,00
Administration costs <b>with</b> Central Configuration (Saves 90%)	\$1,489,50	\$1,489,50	\$1,436,00
<b>Subtotal administration costs : Centralized Administration for 3 years :</b>	<b>\$19.460.76 \$12,055.26</b>	<b>\$25.207,32 \$17,801.82</b>	<b>\$18,617.20 \$5,693.20</b>

Table 8: User administration costs of the office suites

## Migrating existing Company Templates and Documents without Macros

Migrating old documents is fairly straightforward. First is that many of the documents are older than one year and usually not relevant for the daily business. Those documents can be loaded in StarOffice/OpenOffice.org but we recommend archiving them and not migrating them.

There are two types of documents which probably need a closer analysis. Business related templates and documents that are less than one year old. We estimate that for a typical company, just 10% – 15% of all documents are those types of documents. The remaining 85-90% of these documents do not need to be migrated, they contain no or minor issues only. They can be opened and saved into the OpenDocument file format and be ready for editing.

That leaves a small number of documents that could require manual editing. This can be done by the IT department or by the owner of the document. The Professional Document Analysis Wizard classifies these documents in four categories: documents with zero, minor, medium or complex issues. Documents with medium and complex issues need to be adjusted manually. OpenOffice.org users don't have access to the Professional Analysis Wizard or the Macro Migration Wizard so they need to work with a migration partner to analyze and classify the Microsoft Office documents. This takes approximately a week.

Business related templates should be migrated into the OpenDocument file format. Those templates should be reviewed carefully as well.

## Document Structure List

Type of Document	Number of Documents
Total Documents in representative organization	50.000
Documents that are older than a year (archive these)	40.000
Documents less than a year	10.000
Documents with no or minor issues (don't need manual migration)	8.380
Documents with medium issues	1,000
Documents with complex issues	120
Documents that need manual migration	1,120

Table 9: Number of Documents

## Template Structure List

Type of Template	Number of Documents
Total templates in representative organization	500
Templates that are older than a year	300
Templates less than a year	200
Templates that need manual migration	50

Table 10: Number of Templates

## Migration Costs Summary

The table below summarizes the migration costs for files without MS Office macros. The costs are incurred in StarOffice and OpenOffice.org only.

	No or minor issues	Medium issues	Complex issues	CI Templates
Document migration time (minutes)	0	10	30	60
Labor costs (per hour)	N/A	\$30,00	\$29.79	\$29,79
Documents younger than one year	10000	1000	120	50
Costs document migration	\$0,00	\$5,000.00	\$1.787,40	\$1.489,50
<b>Subtotal document migration</b>	<b>\$8.276,90</b>			

Table 11: Document migration costs (documents without macros)

## Macro Migration costs

The migration to the StarOffice office suite provides an excellent opportunity to rethink your company's existing processes. For example, before you migrate any existing Visual Basic macros, try to determine if the macros are still needed. You can then discard the macros that are no longer useful, and simple Excel macros may run through the VBA Runtime Library of StarOffice and OpenOffice.org. You can also reengineer the remaining macros manually in StarOffice Basic or rewrite the existing macros as Java or C++ components. An advantage to this approach is that the new components provide a performance boost over the Visual Basic macros. Another approach is to use web-based and collaborative Java-based applications. These components provide better runtime security and error-handling than Visual Basic macros.

Notes on the macro migration table below : The compatibility of the macros is not perfect and the new user interface for Office 2007 requires a migration effort for menu and toolbar customizations , which is why there are macro migration costs when deploying Microsoft Office 2007. Macros have been categorized as minor, medium and complex. As an example, the [German Surveying and Land Register Administration](#) with 1900 desktops identified 5 Word, 39 Excel and 4 Access macros to migrate.

	StarOffice 9	OpenOffice.org 3.x	Microsoft Office 2007
Minor/Excel macro (cost for one macro)	\$629.76/\$39.36	\$629.76/\$39.36	\$0.00
Medium/Excel (cost for one macro)	\$1,259.52/\$944.64	\$1,259.52/\$944.64	\$57,44
Complex/Excel (cost for one macro)	\$6,297.60/\$5904.00	\$6,297.60/\$5904.00	\$229,76
<b>50</b> (44 Excel/6 Word) minor complex	\$5,510.40	\$5,510.40	\$0.00
<b>10</b> (8 Excel/2 Word) medium complex	\$10,076.16	\$10,076.16	\$287.72
<b>1</b> (Excel) complex macro	\$5,904.00	\$5,904.00	\$28.72
<b>Subtotal macro migration</b>	<b>\$21.490,56</b>	<b>\$21.490,56</b>	<b>\$316,44</b>

Table 12: Costs of migrating Microsoft Office macros when deploying a new office suite or upgrading to Microsoft Office 2007

## Chapter 4

**Conclusion****Aggregating all the costs**

The costs for training, document and macro migration are higher for StarOffice and OpenOffice.org than for Microsoft Office but these costs are more than offset by the savings in licensing, operating system costs and hardware replacement costs associated with StarOffice and OpenOffice.org. The table below summarizes these costs.

	StarOffice 9	OpenOffice.org 3.x	Microsoft Office 2007
Subtotal Hardware	\$450.000,00	\$450.000,00	\$450.000,00
Subtotal Operating Systems	\$70.000,00	\$70.000,00	\$467.500,00
Subtotal application analysis	\$14.946,20	\$14.946,20	\$1.086,22
Subtotal document analysis	\$893,60	\$4.000,00	\$0,00
Subtotal Office licenses	\$73,500.00 <sup>8</sup>	\$0,00	\$654.000,00
Subtotal Support costs (3 years)	\$0.00 <sup>9</sup>	\$61.560,00	N/A
Pre-Paid package of support hours	N/A	N/A	\$14.499,00
Subtotal Training	\$389.440,00	\$389.440,00	\$328.640,00
Subtotal administration	\$19,460.76	\$25,207.33	\$18,617.20
Subtotal document migration	\$10,776.90	\$10,776.90	\$0.00
Subtotal macro migration	\$21.490,56	\$21.490,56	\$316,44
<b>Total with hardware</b>	<b>\$1.050.508,02</b>	<b>\$1.047.420,99</b>	<b>\$1.934.658,86</b>
<b>Cost savings (per 1000 desktops, over three years)</b>	<b>\$884.150,84</b>	<b>\$887.237,87</b>	
<b>Percentage saved</b>	<b>46%</b>	<b>46%</b>	
<b>Total without hardware</b>	<b>\$530.508,02</b>	<b>\$527.420,99</b>	<b>\$1.017.158,86</b>
<b>Cost savings (per 1000 desktops, over three years)</b>	<b>\$486.650,84</b>	<b>\$489.737,87</b>	
<b>Percentage saved</b>	<b>48%</b>	<b>48%</b>	

Table 13: Summary of all costs

<sup>8</sup> StarOffice 9 subscriptions which includes licenses and support for a period of 3 years

<sup>9</sup> The StarOffice 9 subscriptions costs already includes the costs for support

## Summary

An office suite is an essential part of the company workflow. It cannot be replaced by just replacing the software. A well managed migration project makes a migration to StarOffice easy and secure with a potential cost savings relative to Microsoft Office of more than 46 % or \$US885,000 per 1000 desktops and over a three-year time period.

The migration to Microsoft Office 2007 needs to be carefully planned because of the new user interface and new file format; it is not a “typical” upgrade as it was with MS Office 2003. Users needs to be trained in the same way as would be trained to use StarOffice or OpenOffice.org. In addition the new features are not compatible with earlier releases. It can not be expected that other users could edit the document because of the relatively low market penetration of the 2007 release.

OpenOffice.org is free but this does not imply that it has a lower TCO. StarOffice comes bundled with the Professional Analysis Wizard, Transformation Wizard which reduces the document analysis costs significantly and even more significant the advanced patch strategy reduces the maintenance costs for StarOffice. Considering all these factors, the overall costs of StarOffice and OpenOffice.org are almost identical.

## Appendix 1

### Staff Salaries

Any organization of a comparable size to our example organization requires IT services, provided either by an in-house team, or outsourced to a service provider. We will cost the salaries and sundry expenses of having a team of 3 permanent staff, and include this in our analysis. The staff will comprise a senior, systems level person, and a junior support person. The Salary costs based on numbers produced by the Cybersource [Linux vs Windows – Total Cost of Ownership Comparison](#) study. The staff chosen to fill the roles will be trained and expert in either of our competing Microsoft or Linux platforms.

The salary of a UNIX Administrator is app. 5% higher as the Windows equivalent because of wider range of knowledge. Both salaries rates will be aligned of the next couple of years because of higher popularity of Linux.

Windows Platform permanent staff <sup>10</sup>	Per Annum	Per Hour <sup>11</sup>
Salary + benefits for Senior Systems Administrator	\$100,000.00	\$53,19
Salary + benefits for Mid-level Systems Administrator	\$69,000.00	\$36,70
Salary + benefits for Junior Support Administrator	\$54,000.00	\$28,72
Solaris x86 and Linux Platform permanent staff		
Salary + benefits for Senior Systems Administrator	\$105,000.00	\$55,85
Salary + benefits for Mid-level Systems Administrator	\$74,000.00	\$39,36
Salary + benefits for Junior Support Administrator	\$56,000.00	\$29,79
Imputed cost		
Entry-level worker		\$20
Knowledge worker		\$30
Power users		\$40
Help-desk workers		\$40

Table 14: Staff salaries

<sup>10</sup> We researched the costs for both Linux and Windows platform staff via online staff recruitment and placement firms.

<sup>11</sup> 1880 hours / work year

## Appendix 2

### Linux / Open Source Software TCO studies

Cybersource: Linux vs Windows – Total Cost of Ownership Comparison  
([http://www.cybersource.com.au/about/linux\\_vs\\_windows\\_tco\\_comparison.pdf](http://www.cybersource.com.au/about/linux_vs_windows_tco_comparison.pdf))

Avranches-Granville Hospital, France  
Suite bureautique, les enjeux d'une alternative  
([http://oootools.free.fr/memoire\\_cnam/memoire\\_cnam.pdf](http://oootools.free.fr/memoire_cnam/memoire_cnam.pdf)) (French)  
<http://www.innecite.com/~pmiller/Labbe/LabbeReport.sxw> (English)

Beaumont Hospital, Dublin  
(<http://www.netproject.com/docs/Beaumont.pdf>)

DANISH BOARD OF TECHNOLOGY: Analysis and recommendations drawn up by a working group  
([www.tekno.dk/pdf/projekter/p03\\_opensource\\_paper\\_english.pdf](http://www.tekno.dk/pdf/projekter/p03_opensource_paper_english.pdf))

Rambøll managements: Estimating the Costs of Implementing Office OpenXML and ODF in the Central Government  
([http://www.osl.dk/upload-mappe/ram\\_engPDF/](http://www.osl.dk/upload-mappe/ram_engPDF/))

Soreon Report  
([http://www.soreon.de/site1/index.php/english/soreon\\_studien/kassensturz\\_open\\_source\\_und\\_propriet\\_re\\_software\\_im\\_vergleich\\_update\\_2004\\_95\\_seiten\\_31\\_abbildungen\\_und\\_tabellen](http://www.soreon.de/site1/index.php/english/soreon_studien/kassensturz_open_source_und_propriet_re_software_im_vergleich_update_2004_95_seiten_31_abbildungen_und_tabellen)) (English)

Linuxword.com: Evaluating the ROI of Open Source on the Desktop  
(<http://linux.sys-con.com/read/43720.htm>)

City of Munich, Costs Analysis Study (German only)  
([http://www.udslinux.de/pdf/doku/stadt\\_munchen\\_clientstudie\\_kurz.pdf](http://www.udslinux.de/pdf/doku/stadt_munchen_clientstudie_kurz.pdf))

Declaration of Independence: The LiMux Project in Munich:  
[http://www.osor.eu/case\\_studies/declaration-of-independence-the-linux-project-in-munich](http://www.osor.eu/case_studies/declaration-of-independence-the-linux-project-in-munich)

City of Vienna: Open Source Software on PC-workstations of Vienna's City Administration  
(<http://www.wien.gv.at/english/edp/oss.htm>)

Katowice Municipality: saving public money with OpenOffice.org:  
[http://www.osor.eu/case\\_studies/katowice-municipality-saving-public-money-with-openoffice.org](http://www.osor.eu/case_studies/katowice-municipality-saving-public-money-with-openoffice.org)

### Open Source Case Studies

List of 39 open source case studies of the IDABC European eGovernment Services  
(<http://europa.eu.int/idabc/en/chapter/470>)

Roundtable: City of Haarlem and OpenOffice.org  
([http://www.openoffice.org/editorial/roundtable\\_haarlem.html](http://www.openoffice.org/editorial/roundtable_haarlem.html))

Centre hospitalier de Tourcoing (French only)  
([http://www.aesis-conseil.com/rubrique.php?id\\_rubrique=36](http://www.aesis-conseil.com/rubrique.php?id_rubrique=36))

Open Source Academy: Use of Open Source software by local authorities in England  
(<http://www.opensourceacademy.gov.uk>)

Copenhagen Business School: OpenOffice.org vs. Microsoft Office  
<http://gotzspace.dk/birgir.pdf>