

# **Open Office Work Group Findings**

**7/22/2008**



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## Executive Summary

The OpenOffice.org (From this point referred to as OOo) Working Group was formed to explore the possibility of using OOo as a replacement for the Microsoft Office Suite, and the possibility of putting it in place as an immediate replacement to avoid upgrading the enterprise to Office 2007. Additionally, our scope was broadened to include looking at other free/open source solutions and not limit our research to just OOo.

We have come to the conclusion that while OOo is a fairly robust office suite considering that it is free to use, it would not be appropriate to use it as a replacement for the MS Office Suite. We have not ruled out the possibility that OOo could be appropriate for use in smaller groups that do not rely on the advanced features provided in the MS Office suite, but there are too many features that are either not available or do not work correctly in OOo to justify considering it as a global replacement for MS Office.

We also briefly looked at and discussed alternative office products, such as Google docs and spreadsheets, and StarOffice, but they were all severely lacking in the type of functionality that we require, and very few of the alternatives are actually free.

OOo contains applications that are equivalent to Word, Excel, PowerPoint, and Access. There is also an equation editor and a vector graphics designer intended for creating charts and graphs to be used in conjunction with other parts of the suite.

This document contains a brief summary of our findings, a more detailed summary of our findings, and all supporting evidence and documentation that we generated over the course of this project.

### Summary of Findings

- Considering that OpenOffice.org is free, it is a fairly robust office suite.
- Although the group agrees that it would be ideal for a home user or a small business, our organization is too dependent on advanced MS Office features that OOo either does not contain, or performs poorly on.
- OOo has a very similar look and feel to MS Office 2003
- OOo does not have support for VBA or MS Office macros, although it does contain its own scripting language (OOo Basic)
- Writer can import Word docs, but has some issues with formatting on more complex documents. Also has support for mail merge, but is clunky and does not do well with complex mail merges.
- Calc will import Excel spreadsheets, although some cells may get dropped, or end up with random, arbitrary numbers. Password protection is easy to exploit.
- Base will import older Access database tables, but does not import forms, queries, or reports.
- Impress will import PowerPoint presentations, although sound support somewhat limited, and animation tends to be very sluggish and intensive on the machine.
- No email client included in suite.
- OOo is sluggish to start and tends to be somewhat system intensive.

## **OpenOffice.org Working Group Findings**

- Despite the OOo suite being free, there are still a lot of hidden costs in converting to OOo. It would potentially be more expensive to buy individual MS products than it would be to stay in the MSCA.
- Support is limited to web forums; OpenOffice.org does not provide support for the suite.
- Training costs would be equal to, and most likely greater to train people on OOo as opposed to MS Office 2007.
- Transition to OOo would most likely be easier for a Mac user because of the lack of support for some of the advanced features in the PC version of the MS office suite, although the Mac version of OOo does have its own quirks, and still does not have an email client.

## **Functionality of the OOo Suite**

The parts of OOo that do have an equivalent in MS Office have a very similar look and feel to MS Office 2003. While they are great as stand-alone office applications, they do not support a lot of the more advanced functions that departments have adopted into their business processes. Functions such as mail merge may work, but not well, or without a good deal of troubleshooting. There is no support for VBA or macros in OOo applications, although OOo 3.0 promises to have some VBA support. Most legacy Access database tables can be imported in OOo, although it will not import the forms, queries, or reports contained in the databases. Excel spreadsheets will import into OOo, although again, VBA support is nonexistent, macros don't work, and password protection is easy to exploit. PowerPoint presentations import into Impress, and out of the components of OOo, Impress seems to be the one that is functionally most similar to its MS Office counterpart, although it does have its limitations as well. Sound support is not as robust or versatile, and animation noticeably affects overall system performance. The OOo suite as a whole also does not work with commonly used add-ins such as EndNote, MathType, ProCite, or Arena.

## **Email and Exchange Support**

A very big drawback to replacing MS Office with OOo is OOo's lack of an email client, and more specifically an Exchange client. It is the general consensus of the group that while other options for mail and calendaring exist outside of Outlook and Exchange, the predominance of its use would make it very difficult to move away from. Calendaring and scheduling are heavily used, and compatibility between systems is and would continue to be vital for departments to arrange meetings, conferences, seminars, etc. We discussed some possible alternatives, some that look and feel similar to Exchange, but lack any kind of compatibility, and outside of using webmail in place of an Outlook client, we were unable to find a suitable replacement for Outlook.

## **Performance**

OOo has also generated concerns within the group in terms of its performance, and its effect on the machines that it is installed on. OOo is somewhat sluggish to start, and system performance seems to slow, even after OOo has been closed. A couple of us noticed weird application errors in Outlook and others that seemed to resolve themselves when OOo was removed.

### Cost, Support, and Training

A big part of the charge of this group was to examine the cost ramifications of moving to a free office suite, including training, support, and licensing. We chose to focus on the cost of licensing first, assuming that replacing MS Office 2007 also meant cancelling out of the Microsoft Agreement. We found that ultimately it would cost as much, if not more, to not subscribe to the MCSA and buy necessary components as necessary and on a per-seat basis.

We also discussed the support and training aspect of switching to OOo, both in terms of cost and function. Since OOo is open source and free, there is no official support from the developers. Problem resolution for OOo is in the form of web forums and the off-chance that somebody else may have run into the same problem. It's difficult to quantify the cost for support and finding solutions to problems in OOo given that there is no way of knowing how much of somebody's time would need to be spent looking for a solution to any given problem.

Finding training for both office suites is similar. A quick google search for "OpenOffice training" or "Office 2007 training" reveals a wealth of free online tutorials, videos, and information for using either suite. There are also companies that offer hands-on training for both suites for various prices depending on what type of training, duration, etc. Currently the company is offering an Office 2007 training session at a cost of \$20 per person for a 2.5 hour session. This is a rate that appears to be unbeatable. For instance, [getopenoffice.org](http://getopenoffice.org) advertises instructor-led training for \$900/day for up to 12 students, or \$1100/day for up to 20, plus travel expenses.

While it is safe to say that most (if not all) of us in the group were really hoping for a solution that might equal MS Office, we all agree that OOo is a great alternative for a home user or a small business. However, our organization as a whole has become much too dependent on the features that are missing from OOo to justify moving away from Office 2007, or even earlier versions of MS Office. Given the advanced features in MS Office that are used vary widely across departments, the sum of the parts far outweighs any justification for an enterprise-wide move to an alternative office suite. Lack of mail merge abilities, macro support, and any sort of database migration from the MS Office suite represent enough missing features to make it a hard sell. If we look at where the MS Office Suite is going, and how widespread its use is outside of our organization, we need to factor in OOo's lack of support for Office 2007 file formats, and the lack of support and integration with Microsoft's SharePoint, which is being pushed with a focus on content management, collaboration, and workflow management.

It is important to note the very real possibility that a switch to OOo for a Mac user would be a much easier transition, given that many of the features that we have found to be missing in OOo are not available in the Mac versions of the MS Office Suite. The Mac version of Office does not have an equivalent to Access, VBA support has been dropped in Office 2008, and Entourage is basically a fancy webmail client, although it does have support for calendaring through Exchange. While Mac users are already used to having an MS Office suite that is somewhat stripped down compared to its PC counterpart, we are still faced with the Exchange/calendaring issue, CALs, and some issues that are unique to the Mac. While the Mac users would probably have an easier adjustment, the cost issues still factor significantly into whether OOo would be worth moving to.

## **OpenOffice Writer VS. MS Word**

OpenOffice Writer differences or annoyances:

No built-in support for Office 2007 file .docx format. It has been announced that Writer 3.0 will have support for the new MS Office formats, however.

By default has a really annoying auto-complete feature turned on that tries to guess what word you are trying to type. To turn off, go to Tools < AutoCorrect and uncheck "enable word completion".

Has an annoying "Clippy"-like help/information feature.

Importing .doc files seems to work well, although more complex documents with multiple types of formatting, tables, etc. do not import with all formatting intact, and will need to be adjusted.

Font color changes can't be done with a single click of a button. You have to click on the font color button, and then "paint" the area that you want the new font color to apply to. It also doesn't seem to work too well if there isn't at least one character typed in the area that you are changing the font color in.

Nice that you can export directly to PDF, rather than having to load a plugin or a third-party pdf creator.

Default toolbar buttons look and feel more or less like those in MS Office 2003.

Only two page views; either web layout or print layout. No full screen, outline, or draft.

Can handle simple mail merges, but nothing complex. In other words, Writer handles mail merges in a static fashion, while Word is dynamic. Word incorporates/allows for rules which allow if/then, if/else, and skip statements (among others), while Writer is limited to simple mail merges to lists with no variations or conditions.

In addition to the lack of features in Writer. It takes quite a bit of work to convert an Word mail merge document into Writer. The source file has to be converted into a database using Base (but can be done from Writer). Then every field from the source that exists in the document needs to be reentered. It's much easier when starting a simple mail merge doc from scratch, but you still have to have the source in a database.

No support for MS Sharepoint. .odf files must be downloaded from Sharepoint, edited, and then resubmitted.

## **Calc VS. Excel**

Excel spreadsheets import well for the most part, although there were instances where Calc would assign arbitrary and data into random cells (presumably because there were compatibility issues in some files).

Calc does not allow for Excel add-ins.

Novell and Sun are working on a "VBA interoperability project". This may allow for some macros to work, but currently there is no dependable way to run Excel or Word macros natively. There are some VBA converters, but they don't seamlessly convert all code.

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Some formulas in Excel might not function in Calc (Calc uses semi-colons, Excel uses commas).

Password protection is supported, but also very easy to exploit.

Calc can store a maximum of 65,536 rows with 256 columns in each sheet, with a maximum of 256 sheets for a maximum total of 16,777,216 cells per sheet, which is the same as Excel 2003's limitations. Excel 2007 has raised its limits to a maximum of 1,048,576 rows with 16,384 columns in each sheet. Maximum number of cells per sheet is not possible to calculate since Microsoft lists the maximum number of sheets possible in a workbook as "limited by available memory".

Calc is noticeably slower to open, save, and work with larger spreadsheets than Excel 2003/2007.

Pivot Charts from Excel do not import properly into Calc.

No easy access to regression analysis functions.

## **Impress VS. Power Point**

Impress is extremely slow to open, and slows the whole machine to a crawl as it is opening. By comparison, PowerPoint is very snappy.

PowerPoint has significantly better support for sound. It allows for recording custom sounds, playing CDs during a presentation, and sound that spans across multiple slides in a presentation. Impress does allow for sound to be played on individual slides, but there is no support for spanning across slides. There also are no sound recording utilities and there is no support for playing audio CDs.

Animation is supported within Impress, but the animation tends to be sluggish, affecting the fluidity of the animation and slowing the entire machine down as the animations play.

Impress does seem to import PowerPoint format presentations with little trouble or impact to the format or look of the presentation.

PowerPoint has a definite advantage with respect to built-in templates, and also has direct links to Microsoft's website where more templates are available. There are plenty of templates online for Impress, but by default the application comes with four templates that are both ugly and illustrate what types of colors not to use in a presentation. The templates in Impress also take significantly longer to load than the PowerPoint templates, and PowerPoint's templates will not load in Impress.

Overall, as far as presentation software goes, Impress is fine for what it is. While it may not have all of the tools and functionality of PowerPoint, the features that are missing are the ones that tend to be overused and abused in typically bad presentations. Impress is probably the best part of the OpenOffice suite in terms of being a replacement for the MS Office suite, outside of its tendency to be a system resources hog.

## **Base VS. Access**

### **Starting a Database from scratch**

OpenOffice 2.4 (OOo) has the same toolset as Access – You can create tables, relationships, forms, queries and reports.

Forms/Reports: from the OpenOffice.org 2.3 book put out by Linux Identity Office – “Unlike Access, which has its own form creation tool, Base uses another Open Office Component, Writer, for forms (and reports as well).”

### **VBA compatibility**

There is none. From the OpenOffice.org 2.3 book put out by Linux Identity Office – “OpenOffice.org has a Macro language (called OpenOffice.org Basic) which allows for automation of tasks and event handling. OOo Basic is a full-featured Basic language, akin to Microsoft’s VBA. OpenOffice.org Basic is also known as Star Basic – it is the same language as used in StarOffice.”

And there are form limitations in OOo – in MS Access, you can pull buttons down from the toolbar with code already in place. In OOo, you will need to program each form button.

### **Database Migration**

The response time migrating a MS Access Database - very slow. It also took a few tries, if you are not precise, the database will be formatted in Writer.

When I finally was able to successfully migrate the database (extremely simple example), only the tables migrated. Not the form or queries. (see test results on following pages).

From the OpenOffice.org 2.3 book put out by Linux Identity Office – “Base will read .mdb files, in particular, it can read table schema and data, but not the forms, reports, and the like, unfortunately.”

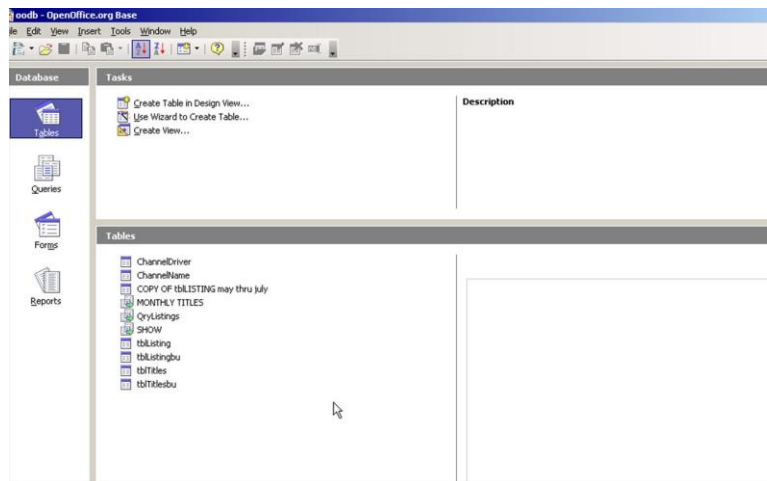
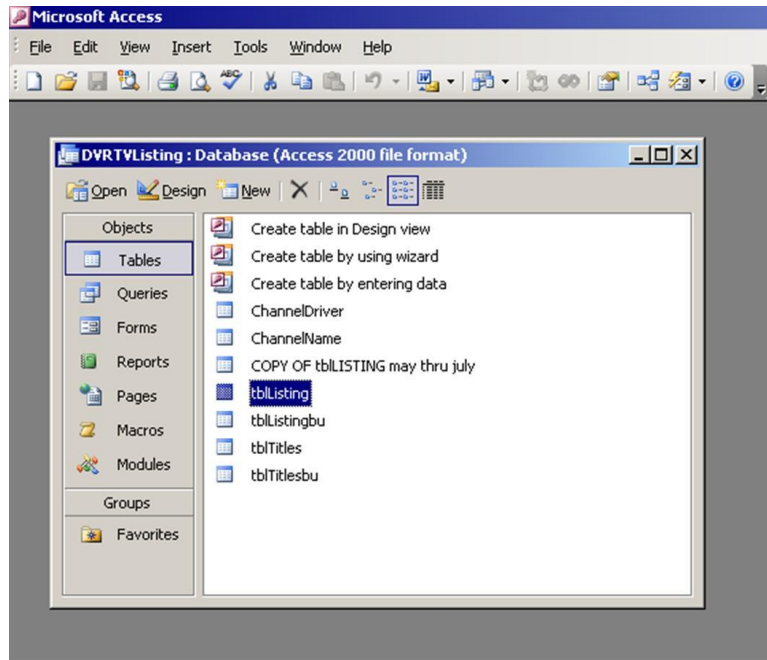
“Conclusion: OpenOffice.org Base is a competent desktop database system .....but “enterprise-level” database management is, still a ways away for OOo Base.”

### **Other Impacts**

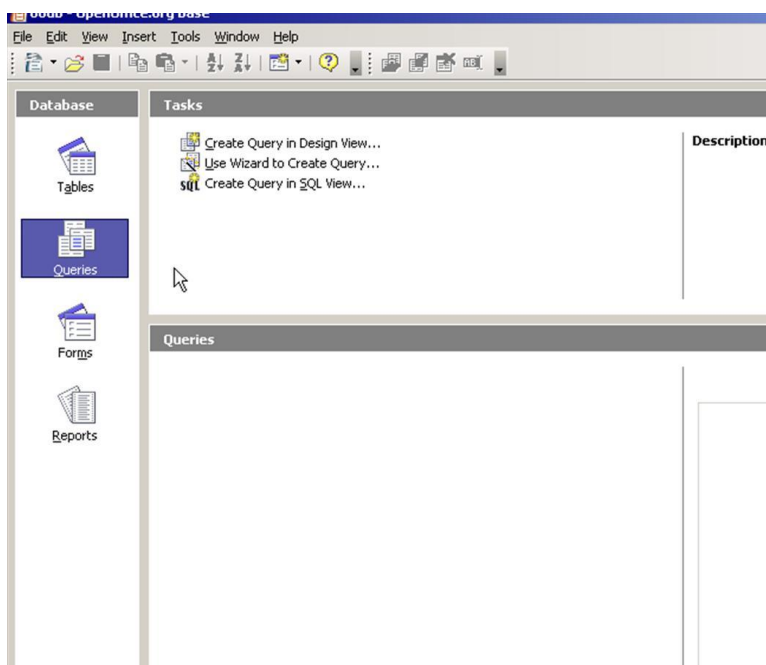
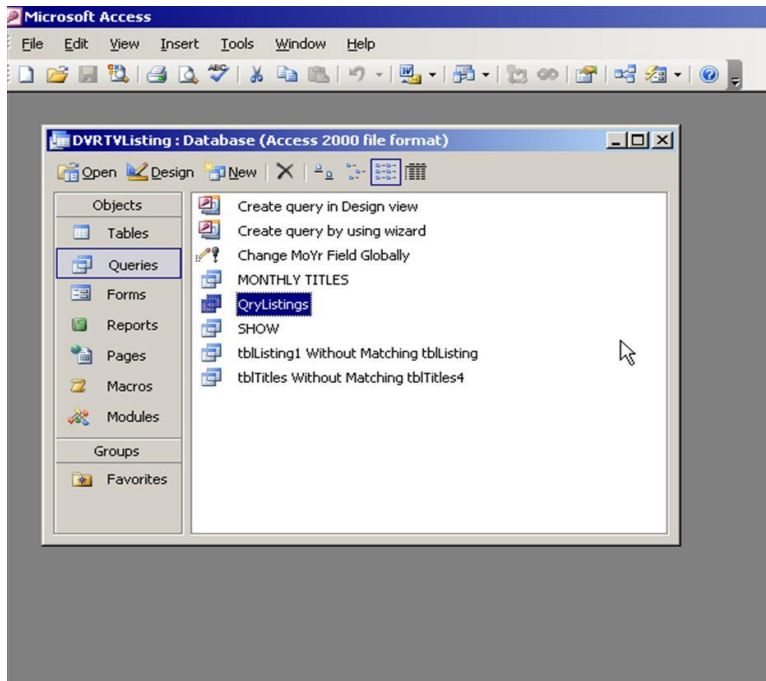
There was a residual effect on MS Outlook – Ooo slowed the response time in opening Outlook. And I had to respond to messages or had errors in Outlook related to a conflict with OOo.



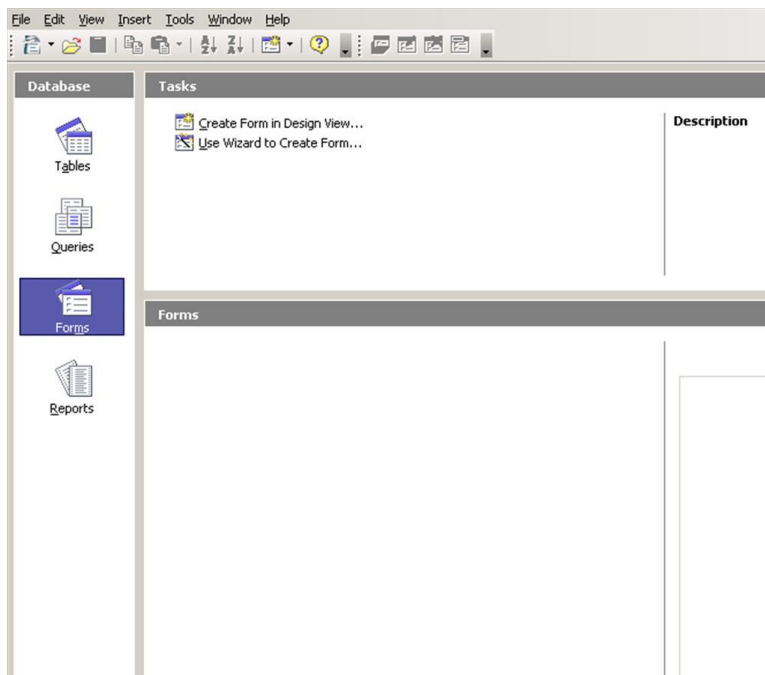
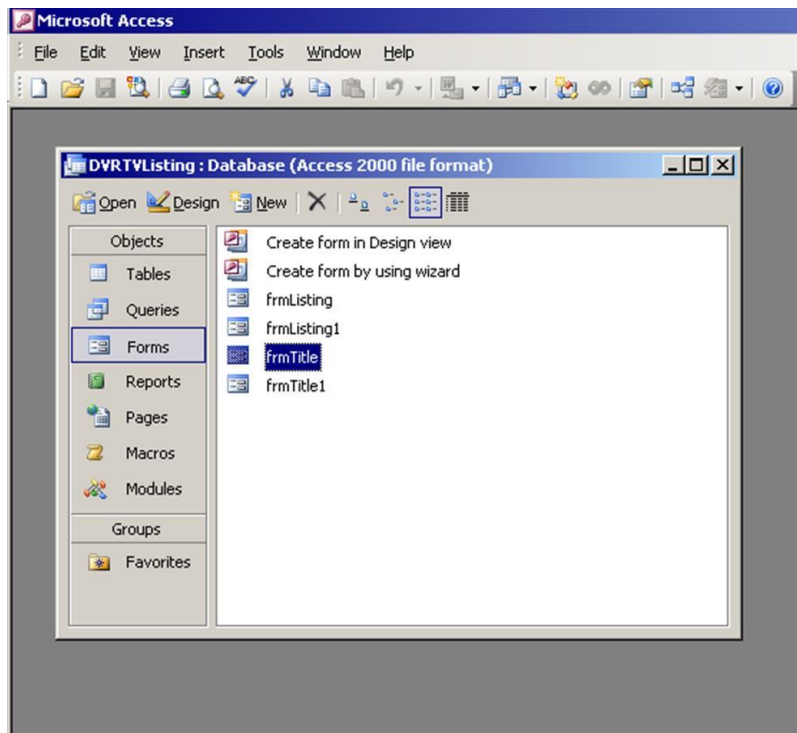
## OpenOffice.org Working Group Findings



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## Appendix Items

### Open Source Calendaring and Microsoft Exchange Alternatives

#### iCal Server

iCal Server is a service included in [Mac OS X Server](#) v10.5. iCal Server is based on the [CalDAV](#) calendar standard. The iCal Server is a [CalDAV](#) standards-compliant server that allows multiple users to collaboratively share calendaring information.

iCal Server was announced during Apple's [Worldwide Developers Conference](#) on [August 7, 2006](#). It uses an open source webserver, [Darwin Calendar Server](#), which was initiated by Apple at the same time, and has the flexibility to run on different platforms without the iCal Server [GUI](#).

How can we interface with Microsoft Windows clients with the iCal server?

- Mozilla Sunbird
  - o Mozilla Sunbird® is a cross-platform calendar application, built upon [Mozilla Toolkit](#). It is a free calendar program that allows iCal calendar sharing with Windows XP.
  - o Note that this is a stand-alone app.
- Mozilla Lightning
  - o Lightning brings the Sunbird calendar to the popular email client, [Mozilla Thunderbird](#). Since it's an extension, Lightning is tightly integrated with Thunderbird, allowing it to easily perform email-related calendaring tasks.
- Evolution
  - o E-mail client considered to be the "Outlook replacement" and supposedly connects to the Microsoft Exchange Server and iCal.

#### Darwin Calendar Server

The Darwin Calendar Server is a standards-compliant server that allows multiple users to collaboratively share calendaring information. It provides a shared location on the network to store schedules, and allows users to send each other and manage invitations. The version which is to be shipped with [Mac OS X Server](#) v10.5 is called [iCal Server](#).

It was publicly released during Apple's [Worldwide Developers Conference](#) on [August 7, 2006](#). Currently, it runs on Mac OS X Server v10.4 with [Python](#) 2.4, and is tested using Mac OS X Server v10.5 developer preview.

The server, named "caldavd" is a [daemon](#) background service. It has been [ported](#) to non-Apple computer platforms. It is currently possible to install it on FreeBSD and several flavors of Linux. The server is written in the [Python programming language](#), and uses [extended file attributes](#) and the [Twisted](#) framework.

The Source Code Management project for Darwin Calendar Server is located at [Mac OS Forge](#).

## Open Source Exchange Alternatives

### Zimbra Collaboration Suite 5.0

<http://www.zimbra.com/community/>

### Scalix

<http://www.scalix.com/enterprise/technology/index.php>

## Additional Links

### iCal

<http://www.apple.com/macosx/features/300.html#ical>

### Darwin Calendar Server

<http://trac.calendarserver.org/>

### Mozilla Sunbird

<http://www.mozilla.org/projects/calendar/sunbird/>

### Mozilla Lightning

<http://www.mozilla.org/projects/calendar/lightning/>

### Evolution for Windows

<http://www.dipconsultants.com/browser/>

*Note: I did some testing with this and found it would not be a satisfactory replacement to Outlook. More testing would need to be done, but it appears to be using imap and takes quite a bit of time to pull in e-mail and calendar items.*

## Cost Comparison: Can we save money by switching from MS Office to OpenOffice?

### Microsoft Agreement (MSCA) vs. individual MS product licenses

Department and academic units that participate in the MSCA receive a deeply discounted price for upgrade/downgrade rights on Microsoft Windows (2000/XP/Vista), MS Office (2003/2007), and the Core Client Access License (CAL) Suite. If those units were to consider using an open source office suite (e.g.- OpenOffice) in the hopes that it could replace MS Office and/or eliminate the MSCA, then here is a comparison of the cost to do this:

## OpenOffice.org Working Group Findings

	OSU Price	Dell or OETC Price
MS Campus Agreement (MSCA) Desktop	\$ 43.42	
Windows Vista Business Upgrade	included	\$ 65.00
Core Client Access License (CAL) Suite	included	\$ 26.64
Office Enterprise 2007	included	\$ -
MSCA DESKTOP COST PER FTE	\$ 43.42	\$ 91.64

The MSCA charge is an annual cost, while individual licenses are a one-time cost. Below are some common scenarios of how a particular unit fares in the comparison:

**SCENARIO 1:** Any unit that uses MS Windows on its desktop computers and relies on any Microsoft infrastructure components (domain controllers, standalone servers, Exchange e-mail server, etc) can use the above numbers to verify that it makes sense to participate in the MSCA because of the cost saving on licenses, the reduced staff time to ensure license compliance, and the fact that MS Office is included in the per FTE cost. In this scenario, the cost to switch to OpenOffice are greater for the unit.

**SCENARIO 2:** If a unit uses MS Windows on its desktop computers but has no MS infrastructure components, then the unit must consider three things:

- a) Which version of MS Windows will be used? – If they prefer to use a Professional, Business, or Enterprise edition of Windows, many vendors charge extra (~\$65 from Dell) for these more powerful versions of Windows. That additional cost is more than the price of the MSCA.
- b) Will any of their FTE use any MS Office applications? - If any FTE use MS Office, then a license through OETC is currently \$64.31 (again, more expensive than the cost of the entire MSCA). If only one MS Office application is needed (Outlook, for example), then the OETC price is \$23.33.
- c) Are Client Access Licenses (CAL) needed? - connecting to a MS SQL, Exchange, or file/print server requires the client to have the appropriate CAL. Cost of a CAL varies from \$2.54 for a simple Exchange CAL to \$26.64 for the Core CAL Suite that comes with the MSCA.

### NOTES FOR ALL SCENARIOS:

- The MSCA is priced per FTE. Any student classroom or lab computers owned by the department that use the MSCA software are covered at no additional charge.
- The MSCA charge is an annual cost.

## OOO for Mac

OOo for Mac Uses the X11 framework to launch. During launch, OOo generates an error saying "Command time out". Clicking through the error will then launch OOo. When exiting OOo, User can go to "File Menu" and choose to exit, but this will leave the X11 terminal window open. The other option is to close X11 in finder, but this may confuse users if they do not know that X11 is associated with OOo, and the next time OOo is launched, it goes into document recovery mode because OOo was shut down improperly.

## OpenOffice.org Working Group Findings

OOo has the look and feel of a Windows app running inside the Mac. Since X11 resides in the application toolbar whenever OOo is in focus, your application menus are all contained within the OOo window. This may be confusing for Mac users that are used to using the Finder's application toolbar.

OOo for the Mac looks exactly like OOo for the PC. Users who are used to the "floating toolbars" look of MS Office for the Mac may not like the look and feel at first, although the functionality of OOo is fine.

OOo for the Mac is extremely slow to launch, and although the suite as a whole feels snappier than its PC counterpart (Impress goes through opening menus very quickly), animation in Impress still created an enormous amount of system lag.

## Other Notes

Draw is a vector and raster drawing application for creating images to be used in Writer and Impress. It does not have a direct stand-alone counterpart in MS Office, so we did not spend a whole lot of time with it. We had originally thought that it might be a potential replacement for Visio or Project, but found that it is basically a stand-alone OOo application that mimics the functions of the built-in MS Office graphics engine.

Math is an equation editor similar to the equation editor in MS Office. It can be used to create mathematical equations that can then be embedded in other OOo applications. As was the case with Draw, we did not spend a whole lot of time looking at Math since there was no stand-alone application equivalent in MS Office.

Links to online sources for open-source/free/low cost MS Office alternatives:

<http://www.pcmag.com/products/0%2C%2Ctqs%3DA114020B48A3E67140F831CFCCAAB7B10F357533%2C00.asp?query=openoffice&action=newsimplequery&cid=1562&sid=1562&gridtitle=Search+Results&stpdinglp=1>

[http://reviews.cnet.com/4520-3524\\_7-5140428-1.html](http://reviews.cnet.com/4520-3524_7-5140428-1.html)

<http://www.computerworld.com/action/article.do?command=viewArticleBasic&articleId=9027698>