

A Look at Suse Linux OpenExchange 4.1

A New OpenExchange

The groupware solution Suse Linux OpenExchange 4.0 (SLOX) was reviewed in this magazine in the April 2003 issue. A lot has changed between then and now, and it is worth revisiting SLOX version 4.1. The implementation of a WebDAV/XML interface has enabled connectivity with a range of personal information management (PIM) tools and has opened up the document repository to a range of office application. And the release of SLOX's open source groupware modules under a GPL license means that everyone can try out SLOX, or Open-Xchange to be exact, for free.

In an ever more distributed workforce, effective collaboration is essential. SLOX 4.1 includes integrated support for instant messaging and a suite of collaboration tools. Later in this article you will see how groups of users can collaborate in real time to discuss ideas and review source code even if they are on different continents.

A Real Alternative to Exchange

Since its introduction in November 2002 as a new groupware solution and a replacement for Suse Email Server, Suse Linux OpenExchange 4 (SLOX) [1] has only moved from version 4.0 to 4.1, but it has come a long way functionally as a real alternative to Microsoft's Exchange Server.

There is no doubt that Suse has focused its recent efforts on winning over users of Microsoft Exchange 5.5 and 2000. Many of the newer features in OpenExchange 4.1 address some of the shortcomings of 4.0 when it comes to integration with Microsoft Outlook. Outlook is almost the de facto standard for corporate desktop email clients. The old saying says, "if you cannot beat them, join them." And that is certainly Suse's strategy for OpenExchange.

Most organizations are slow to change. Migrating from Microsoft Exchange to OpenExchange is largely an IT issue and



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It may only be a point release from 4.0 to 4.1, but a lot has been added to

OpenExchange. Novell's takeover has given OpenExchange a new impetus.

And now you can download an open source version of Suse's OpenExchange called Open-Xchange. **BY LARKIN CUNNINGHAM**

primarily affects an organization's IT department. Changing Outlook, however, is largely a user issue and could require a significant investment in training users for SLOX's web-based groupware and web mail environment. For many organizations, therefore, it is simply not practical to get rid of Outlook from a logistical or a financial standpoint. OpenExchange 4.1 addresses this with Public Folders and *iSLOX*, a MAPI extension for Outlook.

Public folders not only extend the functionality of the groupware web interface, they also mirror the folder implementation of Outlook and Exchange. Folders, as with Outlook, can contain objects of a specific type. The specific object types are contacts, calen-

dars, tasks, and unbound. Unbound folders are simply a way to group other folders logically. As with other objects in SLOX, folders are assigned user and group permissions. For example, you can assign read permissions on a folder to a colleague but deny update and delete privileges. Your colleague will automatically see the folder in his list of public folders and will be able to view, but not update, any objects in that folder.

The Folder Tree

The default setup in SLOX is a root public folder that contains three folders for calendar, contacts, and jobs. These folders are master folders that contain the appointments, contacts, and jobs of all other folders you create. You can create

many other folders in a hierarchical structure, each with its own separate sub-set of appointments, contacts, and jobs, and all will be viewable in the master folders (see Figure 1).

iSLOX is a real time connector for Outlook and SLOX that gives users all of the functionality provided by Outlook's integration with Exchange. It uses WebDAV / XML (see below) and Lightweight Directory Access Protocol (LDAP) to access your calendars, contacts, and jobs and synchronize them with Outlook in real time. When you configure Outlook to use the SLOX connector, the public folders that belong to your profile are displayed automatically.

If you need to work offline for a period of time, you will need a way to synchronize with SLOX when you reconnect. *oSLOX* is a client application that runs in the background and synchronizes with SLOX either manually or periodically, depending on whether you are offline or connected to your SLOX server. Your public folders are synchronized with SLOX and are added to your Outlook Personal Folders, which are stored locally. This allows you to maintain your contacts, appointments, and tasks and synchronize with SLOX when you are back online (see Figure 3).

WebDAV / XML

One of the major improvements to SLOX since version 4.0 is the implementation of a WebDAV/XML [2] interface. WebDAV stands for Web-based Distributed Authoring and Versioning, and it pro-

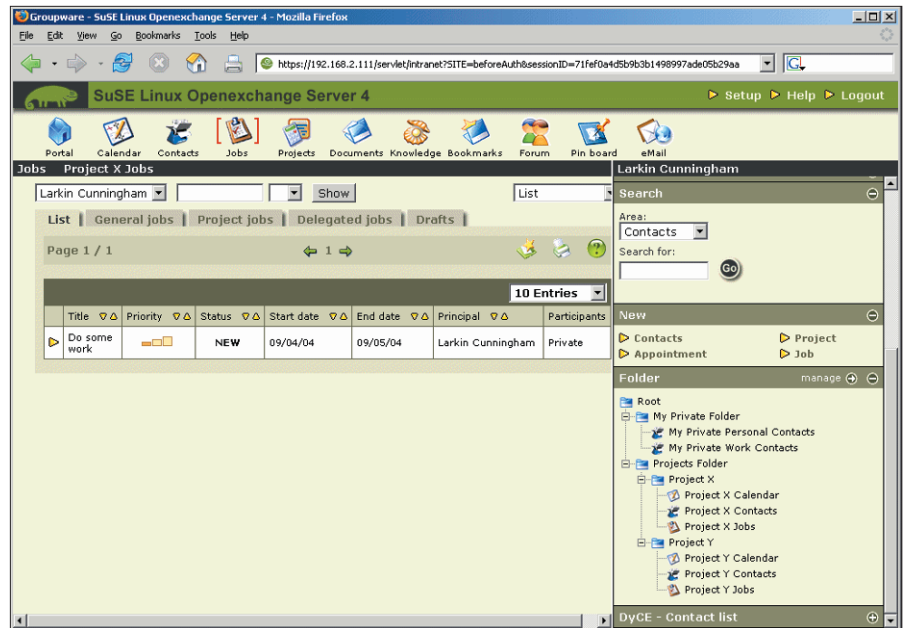


Figure 1: A view of a sample public folder hierarchy in OpenExchange's groupware web interface.

vides a set of extensions to the HTTP/1.1 protocol that allows the sharing of files among many users. WebDAV allows for exclusive and shared file locking, and SLOX's implementation respects the user and group permissions that are set in the groupware web-based interface.

Suse have built an interface to its calendar, contacts, jobs, and documents that allows third party applications to exchange data with OpenExchange 4.1. OpenOffice.org supports the WebDAV protocol, and you can edit files in SLOX's document repository directly. This saves time over the previous method of downloading a copy locally, editing it, and then uploading it again using the web-

based groupware interface. When you make changes to a file in the document repository using the WebDAV interface, a new version of the file is added, and SLOX's version control is maintained. User and group file permissions set using SLOX are respected. One word of warning though: if you have auto-save enabled in OpenOffice.org, you may end up with many more versions of your document than you would like.

Alternatives to Outlook on Linux

To make it possible for organizations to make the move to the Linux desktop, there needs to be a credible alternative to

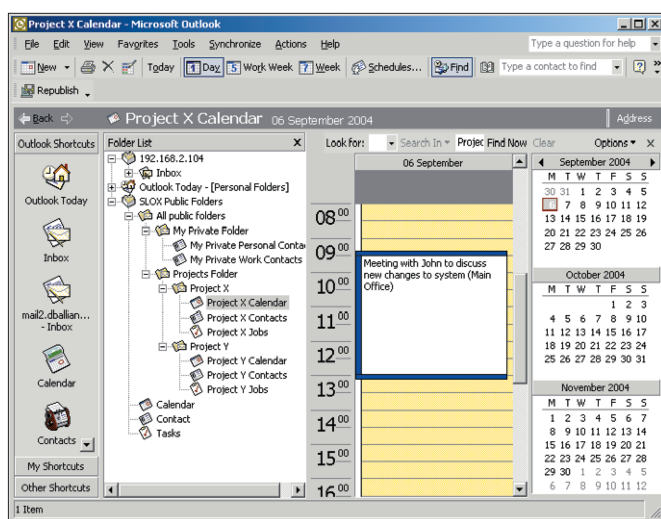


Figure 2: *iSLOX* gives you real time synchronization with the calendars, jobs, and contacts in your public folders.



Figure 3: *oSLOX* allows to work offline with your public folders and synchronize with OpenExchange when you are online.

Outlook. SLOX's WebDAV/XML interface has opened up its groupware functionality to a range of Linux applications that have some or all of the functionality that Outlook offers. Here is a look at some of them.

Mozilla Calendar

Mozilla Calendar [3] is available as an extension to Mozilla Suite, Firefox 0.9+ and Thunderbird 0.7+, and as a stand-alone application with Mozilla Sunbird. The Calendar application is a cross-platform, standards-based client based on the iCal standard and the Mozilla XUL user interface language. By providing the URL to your WebDAV calendar, Mozilla Calendar can browse the appointments in your personal calendar (see Figure 4). Existing appointments cannot be updated directly on the SLOX server and new appointments will not appear on the SLOX server without the use of a Java client application available from Netline Internet Service's SLOX development server at <http://devel.slox.info/>. You will be required to register with them before you can download the application, but you will get an idea of how SLOX can be customized when you log on to their SLOX server.

If you plan to use Thunderbird and Mozilla Calendar to manage your appointments and contacts, you can do so. You can access your SLOX contacts using the LDAP protocol. However, the tasks you set up in Mozilla Calendar are not synchronized with SLOX and you

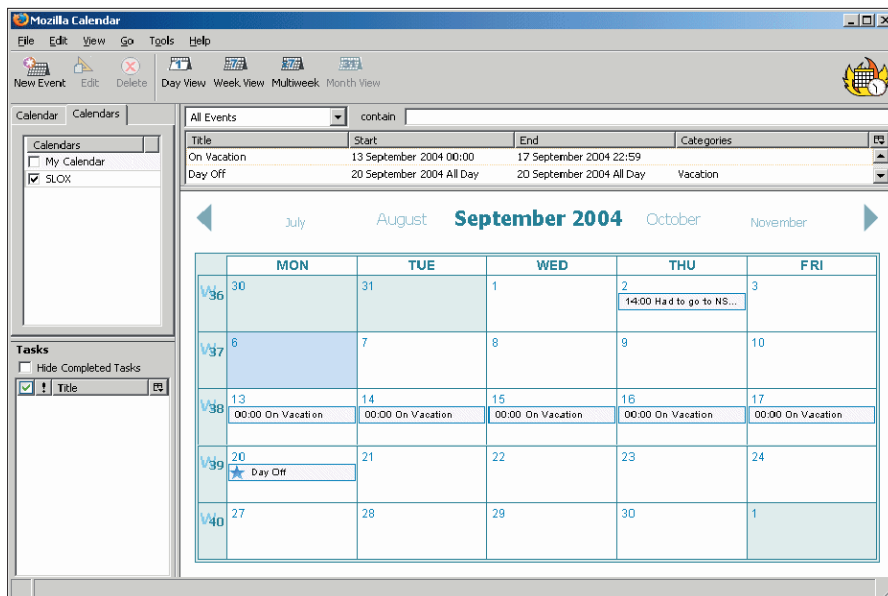


Figure 4: Mozilla Calendar allows you to browse your OpenExchange calendar using the WebDAV/XML interface.

cannot access the jobs you created in SLOX.

Ximian Evolution

Later in this article I discuss the significance of Ximian Evolution [4] in the takeover of Suse by Novell. Novell also purchased Ximian, and the Evolution product is now known as Novell Evolution. Version 2.0 of Evolution is due to be released soon and promises full support for SLOX. This will give the Linux desktop its closest alternative to Outlook on Windows. And just as Exchange and Outlook are developed with the other product in mind, we can expect Novell to

take the same approach with Evolution and SLOX.

KDE Kontact

An alternative that is available right now on the Linux desktop is Kontact [5], part of the KDE suite of office products. The latest version of Kontact, just about to be released, is Kontact 1.0 (part of KDEPIM 3.3), and support for SLOX is included. At the time of this writing, Kontact 1.0 was only available as a release candidate, but it should be available on general release and as part of KDE 3.3 by the time you read this. If you are unfamiliar with Kontact, you may be familiar

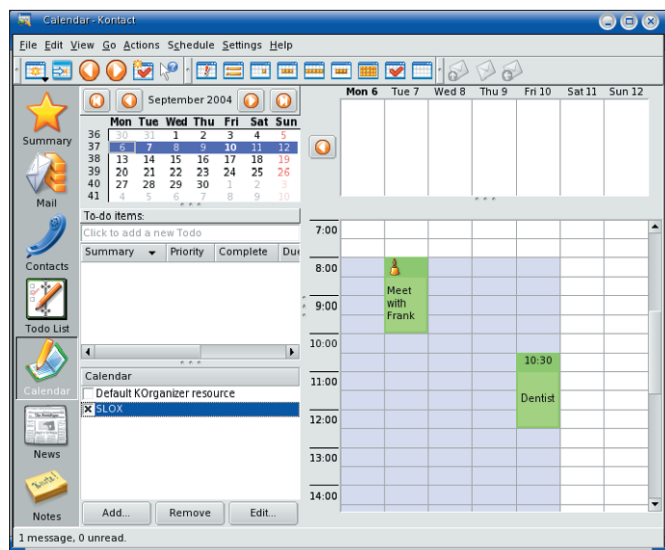


Figure 5: KOrganizer in Kontact 1.0 will allow you manage your OpenExchange appointments and tasks.

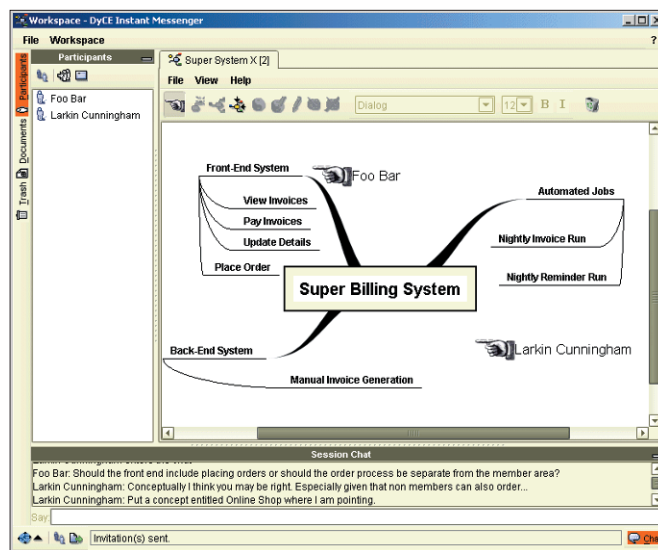


Figure 6 : Mindboard lets participants map out concepts.

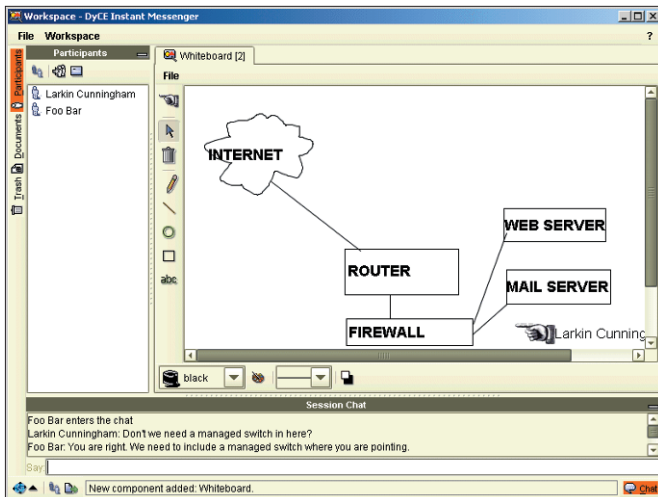


Figure 7: The Whiteboard allows you and your colleagues to draw diagrams while chatting online.

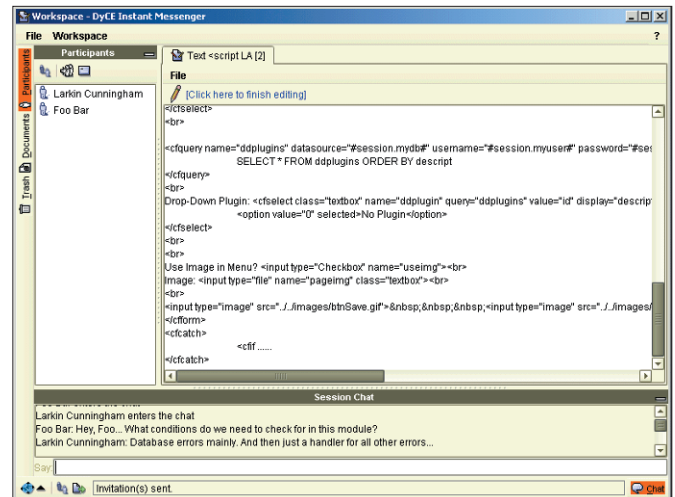


Figure 8: The shared Notepad allows you to review source code with your online colleagues.

with KOrganizer (see Figure 5), which is at the core of Kontact and is an excellent PIM with an established open source development community.

Real-time Collaboration

One of the biggest problems with a distributed project group is the feeling of disconnectedness. There is no substitute for being able to tap your project co-worker on the shoulder and ask him or her to discuss a concept or review a section of source code. And you cannot beat a good session around a white board with the rest of your project team, scribbling diagrams and discussing algorithms. Thankfully, help is at hand in version 4.1 with an integrated instant messaging product called DyCE Instant Messenger [6]. The people at Suse and go4teams got together to integrate DyCE instant messenger into SLOX's groupware. DyCE instant messenger can be used via the web-based groupware front-end and through DyCE's Java client.

There are six mini-applications that form DyCE Instant Messenger. As you would expect, there is an instant messaging tool to send text messages to your co-workers. There is a useful file transfer utility that gives the recipient the option

of saving the file to disk, having it sent to their email account, or having a link sent to their email account. There is a chat utility where team members can gather for conversations. Also included is Mindboard (see Figure 6), which allows the participants to map out concepts, and Whiteboard, which allows participants to doodle some diagrams using either free-hand drawing or some predefined shapes and text (see Figure 7). Last is the shared Notepad (see Figure 8), which allows participants to review text, such as source code, and view changes made by the owner of the text. Each of the three collaborative tools includes the chat utility at the bottom of the screen, which lets the participants discuss concepts, diagrams, or text in real time.

Inviting participants to join the collaboration is easy. You click on an icon, invite your co-workers, and select the people you want to invite. This pops up a dialog on the invitees' screens (see Figure 9) asking them if they wish to accept your invitation. If they accept, the collaborative tool they have been invited to join will load from the Java client and display the concepts, drawings, chat, or text being viewed. The DyCE Instant Messenger runs as a separate daemon on

the OpenExchange server using ports 8580 and 8581. If you need to use collaborative instant messaging over the Internet, you will need to adjust your firewall settings to allow traffic in and out of these ports on the server and the clients.

DyCE Instant Messenger is included in SLOX with a fully functional, time unlimited trial license for five users. This license is provided without support but can be used by a small project team at no additional cost. For larger project teams, go4teams will supply a 10-user license with support for 550 Euro. Additional license packs are available for 5, 20, 50 and 250 users.

The Novell Factor

The recent takeover of Suse by Novell Corporation has been well publicized. Novell, probably best known for its NetWare product, has been focusing on Linux in the enterprise. Because Novell has been a serious player in the IT industry for many years, it carries a lot of respect with IT managers. This can only help with Suse's credibility in large organizations.

Novell also recently acquired Ximian, best known for its Gnome desktop and



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Evolution personal information manager (PIM). It is the acquisition of the Evolution product that will be of most interest to SLOX users. Evolution is effectively a clone of Microsoft's Outlook PIM and has a similar look and feel. Users of Outlook who are migrated to Evolution will find the change an easy one to get to grips with. The current release of Evolution comes with a freely available connector to Microsoft Exchange. The upcoming 2.0 release of Evolution promises support for SLOX, and this will be a major development for SLOX on the Linux desktop. With Evolution 2.0 available on the Linux desktop, the argument that client PC's must run the Windows operating system just to be able to run Outlook no longer holds. And that puts paid to one of the few remaining excuses employed by IT managers reluctant to migrate users to Linux.

Questions

There are some questions, though, about Novell's acquisition of Suse. One of them that is key in the minds of those committed to SLOX is how the product fits into the long-term strategy of Novell, especially given the existence of a strong competitive product, Groupwise, which is also being developed by Novell. In a recent press release, Novell sought to reassure SLOX users that the future of the product was secure. The product already has a 5-year support guarantee from Suse that must be honored. The press release hinted strongly at a merging of SLOX with Groupwise. One



Figure 9: DyCE Instant Messenger instantly alerts participants to a meeting.

possible scenario is that both Groupwise and SLOX are actively developed in a common direction so that features that are unique to Groupwise are implemented in SLOX and features unique to Groupwise are implemented in SLOX. This could lead to a seamless merging of the two products over time as users of both products end up at a single common product. And it makes no sense for an organization like Novell to be pushing two significantly similar groupware products. If you have doubts, however, the next section on the Open Source alternative should reassure you as to the long-term future of SLOX.

The Open Source Alternative

At the core of Suse's OpenExchange groupware product lies an open source heart in the form of Open-Xchange [7]. Open-Xchange is maintained by Netline Internet Services and was recently released under a GNU Public License (GPL) to the open source community.

Open-Xchange is truly open in the sense that it can run on any Linux distribution and is not tied to the Suse Enterprise Server platform as SLOX is. Open-Xchange is a Java-based product with some of its security components written in C. The code can be modified in accordance with the conditions of the GPL to customize Open-Xchange. You can also change the database from PostgreSQL to a compatible database such as Oracle. Open-Xchange can run on any web server with a servlet engine. Some of the open source options include Apache 1.3.x with Jserv or Apache 1.3.x / 2.x with Jakarta Tomcat.

So why even bother with the Suse's commercial OpenExchange product? Suse OpenExchange includes Suse Linux Enterprise Server 8, a robust and scalable Linux distribution. Patches for both the groupware and operating system are downloaded from one location and can be automatically applied. Suse's excellent YAST installer automates the

installation of all components. On the other hand, if you wish to implement Open-Xchange, you must configure the operating system and groupware separately. This will include configuring the web server, email server, and servlet engine, as well as making sure that certain Perl modules are available and all the correct Java libraries are in place. This is not a trivial task and will require a good deal of Linux knowledge. SLOX, however, takes care of all that with YAST. If you are implementing a groupware solution in a small or medium organization or Linux expertise is at a premium, I would recommend SLOX 4.1. If, however, you are implementing the solution for a small team which has a good deal of Linux expertise at hand, then Open-Xchange is a good option.

A Bright Future

With the open source community continuing development and support for Open-Xchange, the future of SLOX is safe. Where SLOX will finally end up is anybody's guess. It could become the dominant Linux groupware solution in its own right, or it could be merged with Novell's Groupwise. Either way, corporate users of SLOX should be safe in the knowledge that an organization like Novell is not going to abandon SLOX's large user base, even if this means merging the product with Groupwise.

With support being added to many freely available PIM's such as Evolution and Kontact, the adoption of SLOX on the Linux desktop can only increase. Using Open-Xchange and Evolution 2.0 provides a license-free alternative to Microsoft's costly Exchange and Outlook combination, something that will certainly interest many IT managers trying to cut costs. Even using the commercial SLOX with Evolution 2.0 will provide significant financial savings over the Microsoft alternative and should satisfy those who demand support guarantees from a large organization like Novell. ■

INFO

- [1] Suse Linux OpenExchange 4:
<http://www.suse.de/en/business/products/openexchange/>
- [2] WebDAV Resources:
<http://www.webdav.org/>
- [3] Mozilla Calendar: <http://www.mozilla.org/projects/calendar/>
- [4] Novell / Ximian Evolution: <http://www.novell.com/products/evolution/>
- [5] KDE Kontact: <http://www.kontact.org/>
- [6] DyCE Instant Messenger for OpenExchange 4.1: http://www.go4teams.com/content_en/messenger/g4t_messenger_slox_main.html
- [7] Open-Xchange:
<http://www.open-xchange.org/>

THE AUTHOR

Larkin Cunningham is one of the founders of DB Alliance, an Irish company specializing in Linux and Open Source solutions. He enjoys exploring the latest open source applications to see how they can reduce costs and improve efficiency.