

Outlook/Exchange Compatible Linux Groupware

Reasons for Leaving

SuSE, Bynari, N&H, Samsung, or Stalker – all of these manufacturers' server products promise a comprehensive functional and financial alternative to Exchange and its manufacturer Microsoft. One pre-requisite is that Outlook clients will continue to work as usual.

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If the Linux target product is envisaged as being a mail server with address book with calendar built in, then all of the products we tested are capable of replacing Exchange. That's only half the story. Genuine Exchange functionality is more pervasive than simply IMAPing mail.

You would also expect the client to be capable of moving mail between folders, retrieving erroneously dispatched mail, creating vacation responses and honoring server-side rules. Additionally, a dispatch scheduler and mail distribution facility should be available. Table 1 provides an overview of the results.

SuSE Openexchange Server 4

SuSE's Linux Openexchange Server 4 is based on the popular SuSE Email Server 3.1, with added Samba functionality and Comfire Web Groupware. The product's central architectural elements are LDAP and PostgreSQL for receiving mail, and managing mail folders, address books, and appointments. The communication hub comprises tried and trusted solutions like Cyrus IMAP and Postfix. An Apache Jakarta Tomcat serves up web pages, and United Linux provides the basic operating system.

The administrator can tell Openexchange Server to distributed incoming mail automatically to specific folders, or forward messages to other email addresses. This also allows you to apply a spam filter. The SIEVE mail filter can additionally apply a maximum size rule for mail, or filter by other criteria. The Openexchange Server does not automatically enable a virus scanner, although Amavis for Linux can be added later. [1]

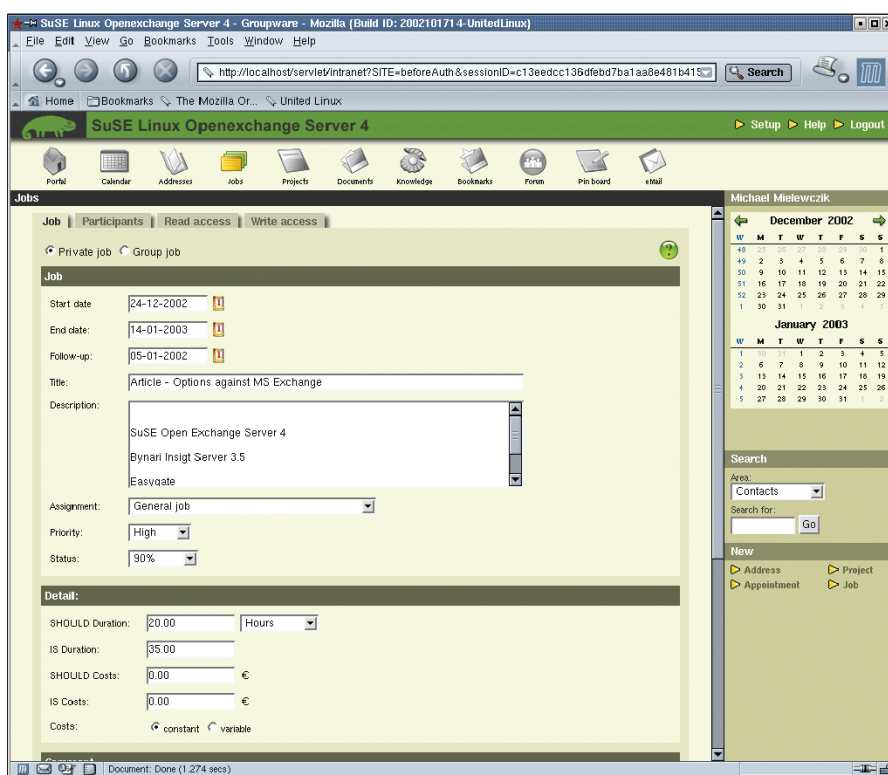


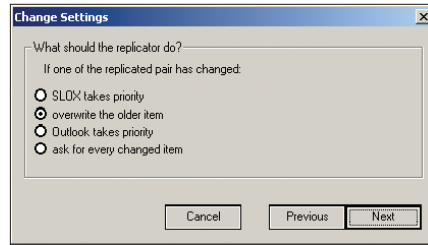
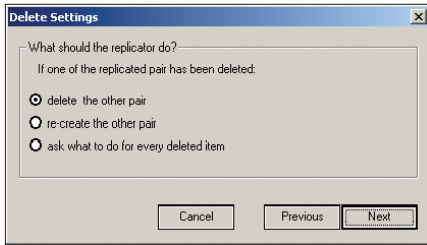
Figure 1: The SuSE Openexchange Server Web client can handle tasks, of course. Any data entered here can also be viewed in Outlook

The Openexchange Server offers a neat Web application that provides users access to their mail, appointments and address management, with enterprise level project and task management, document management, discussion forums, notices and a knowledge base also available. LDAP based address books, access control, and module or global full-text search functions are available for all of these functions.

When scheduling tasks, the program analyses the available resources and searches for a convenient timespan. The document management system allows

rights based access to a central depository of important documents on the server, and can link documents to contacts and projects. A hierarchy of folders and version control functions help you keep track of internal documents. The fact that users can attach notices to documents is another impressive function that allows a user to document the history of a contact, for example.

Assignments can be created, modified, viewed and forwarded, split up into sub-assignments, delegated and assigned to projects, depending on assigned rights.



Figures 2 and 3: In contrast to its competitors' MAPI services, SuSE's tool synchronizes Outlook data directly with the server. This allows you to precisely define what action to take in case of conflicting or deleted data, and specify database priorities

Completed assignments and projects are archived. The forum function is useful for large-scale projects. The knowledge database raises high expectations, but turns out to be a small add-on to the document management system that may be suitable for storing short how-tos for everyday things.

SuSE's Outlook Connector

SuSE support their advertising claim that Openexchange Server is a fully fledged alternative to Microsoft Exchange 5.5 with a purely client-side migration and replication tool for Microsoft Outlook 98, 2000, and XP. However, customers are expected to download this tool from the Maintenance Web Support site after completing their registration process. The replication software synchronizes mail, contacts, tasks, and appointments. The server uses POP and IMAP to provide mail functionality.

Any other functions, including enhanced mail manipulation, rely on replication. These include synchronizing addresses and contacts in both directions, which will honor any write and read privileges that apply. Conflicts caused by duplicate entries or insufficient privileges when deleting a contact, for example, are reliably fielded by the

software. A wizard prompts the admin user to define rules (see Figures 2 and 3). The administrator can additionally create a distributed configuration file to reduce the client-side replication effort.

Tasks are synchronized to the extent that Outlook's functionality permits. It is interesting to note that some of the enhanced functions are accessible via Outlook add-on forms. Personal appointments can be created, modified and deleted in Outlook, and are available on the Openexchange Server after replication. Unfortunately, the current version, which uses data replication, cannot define group appointments or delegate assignments. At least Outlook can display group appointments created with the Web interface.

A realtime connector for Outlook that permits typical Exchange functions is under development according to SuSE and due for release at the CeBIT 2003. The product will not be a genuine alternative for Exchange until then.

Migrating Exchange to Openexchange

A combination of Exchange and Openexchange Server 4 is not feasible and migration of Exchange 5.5 data to Openexchange requires special support where the SuSE support staff, or a SuSE partner, analyze the active MS Exchange system on-site and submit an offer for a D-day migration. The following data is kept: the user list with

privileges, locally globally stored email, tasks, contacts, appointments, and notices. Some Exchange functions are not supported and cannot be migrated. These include journals, recurring tasks, categories and user-specific subfolders.

During the migration process the SuSE crew use tools to export the Exchange and Outlook user source files and convert them to the target file types required by the SuSE server: XML, PostgreSQL, Cyrus Mail, and LDAP. Detailed documentation on the migration program is available from [2], and the article on page 26 provides more info on the SuSE server.

Bynari Insight

The Insight Server is available as an "Intel Platform Edition" and an "Enterprise Server". The former is targeted at small and medium-sized businesses and optimized for SuSE 7.3 and Red Hat 7.2. In contrast, the Enterprise Edition is targeted at large enterprises and runs on IBM's zSeries.

Although Insight Server is designed as a replacement for MS Exchange, they can be run side by side on the network. This makes sense, if you are looking for a cost saving solution to extending an existing Exchange Server. Outlook clients for Windows or Linux Insight clients can then access both servers.

Bynari supplies special client software that utilizes the Insight Server's full range of features. Access is also possible using any Windows or Linux mail client – this also applies to the SuSE and Neuberger & Hughes products. To use the whole range of features, MS Outlook will need the Insight connector, which is available for Outlook 97 through 2002.

Outlook uses the connector to manipulate the Bynari Server's calendar and address book. Additionally, personal folders are available on the server. Bynari calendaring basically uses the data provided by an MS Exchange Server. We tested Insight 3.5.5 in our lab, although Version 4.0.0 is due for release in the first quarter of 2003, and, by then,

should then support virtual domains, server-side filtering, resource management and quotas.

The Insight Connector will then support POP3 in

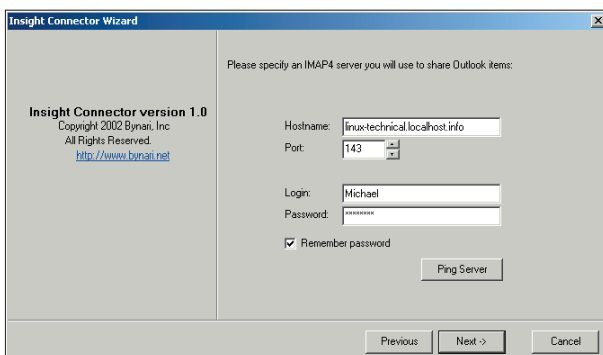


Figure 4: If you intend to use Outlook with Bynari Insight, you need the Insight Connector add-on

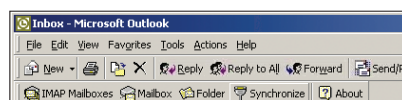


Figure 5: Installing the Insight Connector adds a few new buttons to Outlook

Table 1: Overview of Alternatives Exchange Server

Product	SuSE Linux Openexchange 4	Bynari Insight Groupware 3.5.5	N & H Easygate Workgroup 5.0
Manufacturer	SuSE Linux UK Ltd	Bynari Inc.	Neuberger and Hughes GmbH
Address	Appleton House, 139 King Street London W6 9JG	2639 Electronic Lane Suite 110 Dallas, Texas 75220, USA	Im Brückenwasen 1 73207 Plochingen
Phone	+44 2088463918	+1-214-350-5772	+49-7153-61200
Fax	+44 2087480538	+1-214-352-3530	+49-7153-612033
Website	www.suse.co.uk/	www.bynari.com/	www.n-h.de
Prices and Support	see box on p26	see box on p38	see insert on p36
Requirements	SuSE Linux Enterprise Server 8 (included in package)	SuSE 7.2 and 7.3 recommended ^[2]	any Linux distribution
Outlook Functionality			
Connector	Replication ^[1]	Bynari Insight Connector	N&H MAPI Service Provider ^[6]
Outlook MAPI Support	no	partial	yes
Global MAPI address book	no	no ^[3]	yes
Outlook Mail	yes	yes	yes
Outlook Contacts	yes	yes	yes
Outlook Tasks	yes	yes	yes
Outlook Calendar	yes	yes	yes
Other Clients and mobile devices			
Other Clients	Web Client	Insight Client for Linux	Web Client
Windows CE Synchronization	yes	no	yes, via Outlook
Palm Pilot Synchronization	yes	no	yes, via Outlook
Groupware Facilities			
Web portal page	yes	no	no
Contact management	yes	yes	Address management
Human resource management	yes	yes (as part of contact management)	Address management, groups definable
Appointment management	yes	yes	Calendar private / public
Project management	yes	no	no
Document management	yes	yes	no
Task management	yes	yes ^[4]	yes
Knowledge Base	yes	no	no
Bookmark management	yes	no	no
Notices	yes	yes ^[5]	Notice private / public
Security			
Rights	yes	yes	yes
Encryption	SSL, TLS	SSL, TLS	SSL, TLS
VPN	yes	no	VPN w. Ipsec, Firewall
Antivirus toolkits	as add-on, e.g. Amavis	60 day trial by RAV Anti-Virus	Option
Spam filter	yes	no	yes
Backup	manual add-on, e.g. SEP	manual add-on	manual add-on
Grade			
Features	good	average	good / very good (Exchange)
Handling	very good	average	good
Value for money	good	good	good
Total	good	average	good
Special Features			
		native Windows client available	Bill Server is Open Source
Footnotes			
^[1] Replication on demand, no realtime exchange, as provided by connector		^[5] Notices can be linked to calendar entries	
^[2] Some system services must be disabled on this distribution		^[6] Supports both Microsoft conform TNEF encoding via <i>winmail.dat</i> , and individual MIME attachments for Non-Outlook clients	
^[3] Uses a Microsoft LDAP address book, which is configured individually for each client		^[7] Uses a separate LDAP address book for each client; must be configured individually	
^[4] Shared module with appointment management			

Samsung Contact Server 8.0**Communicate Pro 4.0**

Samsung Contact SDS Europe Ltd	Stalker Software Inc.
200 Brook Drive, Green Park	655 Redwood Hwy, Ste 275
Reading, Berkshire RG2 6UB, GB	Mill Valley, CA 94941 U.S.A
+44 118 9497056	+1 415 383 7164
+44 118 4947256	+1 415 383 7461
www.samsungcontact.com/	www.stalker.com/
see box on p30	see box on p34
any Linux distribution	any Linux distribution

MAPI-Connector	MAPI-Connector
yes	partial
yes	no[7]
yes	yes, POP3 and IMAP
yes	no
yes	no
yes	yes

prop. Java Client	various
yes, via Outlook	yes, via Outlook
yes, via Outlook	yes, via Outlook

no	yes
yes	yes
no	no
Calendar	yes
no	no
no	no
yes	no
no	no
no	no
yes	no

yes	yes
SSL, TLS	SSL, TLS
no	no
no	as third party plugin
no	yes
manual add-on	yes

good / very good (Unified Messaging)	average
good	very good
average	good
good	good

various clustering facilities, prop. migration tool	Clustering available, MMS and SMS solution integrated
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addition to IMAP. The manufacturer has also announced a Webclient service, a migration tool, and a fax server. Page 38 and following provide further details on Insight.

Easygate Workgroup Server

Easygate is available either as a software package, or as a hardware and software based appliance. The software package comprises Easygate, whence the product derives its name and Bill Workgroup Server, which is Open Source software, courtesy of Neuberger & Hughes. The administration of both is browser based.

Easygate is primarily an access package that provides an Internet gateway and a LAN communication hub that either uses fixed IPs or addresses assigned by its own DHCP server. DNS, file and proxy servers are also available. A firewall and content filter provide blacklist and whitelist functionality, and a SPAM filter keep things safe and clean. The Pro Version is also capable of connecting to individual hosts or gateways over a VPN.

The basic server package without Bill Workgroup Server is quite capable of handling internal POP3, IMAP and SMTP communications. The integrated Worldpilot handles Web mail services. Organizations looking to replace an MS Exchange Server with Easygate need Bill Workgroup Server, a Groupware solution ported by Neuberger and Hughes, and the client MAPI driver. Mail is handled by IMAP, and the "N&H MAPI Service Provider" costs 39 Euro per license. The server comes with five licenses by default.

Bill manages mail, appointments, address books, to-do lists and notices in public and private folders. The current Bill, version 2.2, provides two new functions in comparison with earlier products – and some competitors – Free & Busy supports the Outlook controlled vacation feature, and thanks to Invitation Outlook users can send appointment queries (invitations) to other Outlook users, who can then confirm or refuse the offered date.

The comprehensive administrative and user guides are useful. [3] provides further details on Bill's Exchange components, a free, unrestricted version of the server, with a 30 day trial version of the client software. The manufacturer expects to have a Web client that can access workgroup data ready in time for this year's CeBIT. Work is also in progress on integrating workgroup clients from other operating systems. Turn to page 36 for more details on Easygate.

Samsung Contact

Samsung Contact is a successor of Hewlett Packard's Openmail, a product commonly used in large enterprises. The current version, 8.0, which is publicly available following registration, was easy enough to install on a Red Hat Linux machine. The Web interface is nicely done and useful for initial administration steps.

A MAPI driver for Outlook access was available in the previous HP Openmail product. The successor, Contact, has kept to the same paradigm. Contact's MAPI software can be downloaded from the Samsung website. This allows easy booking of appointments for multiple resources by reference to the server's LDAP address book. We also had no trouble creating folders (not subfolders in the inbox), and uploading documents.

A few documents that we stored on the Bulletin Board using the Web client were not immediately visible in Outlook. A quick review of the ACLs and access privileges for the account soon resolved the issue.

Additionally, there were some issues connected with the automatic updating of free/busy information. Samsung Contact's Exchange functionality is quite convincing overall.

The same applies to the migration process. A connector is available for migrating Exchange address books by synchronizing the data with the Contact directory. Local user data can be moved to Outlook by drag & drop. Other manufacturers' products may provide more comfortable GUI access, but there is nothing to prevent you performing a migration using only the internal tools provided by Contact.

However, Samsung Contact is not primarily intended for Outlook integration; instead it shows its usefulness as a

Unified Messaging Server with Web and Java clients in a widespread IT environment. Thus, Contact is suited to ASPs and service providers whose customers require extreme scalability and availability. Turn to page 30 for more details on Contact.

Stalker Communicate Pro

Communicate Pro by Stalker is extremely easy and quick to install. The RPM we added to a SuSE Linux 8.1 machine was up and running in next to no time. The postmaster can use a neat Web front-end to configure the server. And the software immediately came up as a correctly configured mail router.

The server software provides a dynamic clustering option that makes it useful for large numbers of accounts. A mail filter and an antispam function are also integrated. Additionally, you can add a plugin to check incoming



Figure 6: Easygate Server is managed via a Web tool that allows you to create users, rename or disable mailboxes

mails for viruses. As regards security, Communicate offers SSL, SASL, CRAM-MD5, and APOP.

Communicate Pro concentrates on messaging and Internet access by email client or Webmail. LDAP support is available – for creating and manipulating address books – but the MAPI connector is not sufficient for genuine Groupware functionality. Thus, we were unable to access the LDAP address book, or create tasks or group appointments on our lab machine. On

account of its restricted MAPI functionality Stalker is only recommended as an alternative to Exchange for extremely basic assignments.

This is counteracted by an astonishingly easily configured and powerful Internet access software that provides excellent Web client based configuration. The system could also be of interest to Internet providers looking for a specialized email server solution, specifically because the program is available for such a large variety of operating systems. Turn to page 33 for more details on Communicate.

Conclusion

The results of this Anti-Exchange contest need some explanation, in the light of the claims made by the manufacturers.

Easygate Groupware Server and Samsung Contact are probably your best

Janus head MAPI by Syntegra

If you run Outlook 98 or 2000 in CW (Corporate and Workgroup) mode, you lose the ability to access IMAP4/IMAP4rev1 folders. This is annoying if you want to migrate mail functionality from Exchange Server to a Linux server. Syntegra's IMAP4 Message Store Service Provider (IMAPSP) MAPI connector solves this problem – for a license fee <http://www.us.syntegra.com/imapsp>.

bet, if you are looking for a qualified replacement for Exchange that provides Outlook MAPI support. There are two realtime connectors for Outlook that really work: Easygate's "N&H Service Provider" and Samsung's "Contact MAPI Service Provider".

Communicate Pro and the Bynari package only provide partial MAPI support. Insight does not have a global MAPI address book or a MAPI transport service, but provides each client with a separate, customizable LDAP address book and configurable POP/IMAP/SMTP services which almost bring it up to par. In our lab Stalker's Communicate MAPI Connector only supported email and calendar functionality. We were unable to create tasks, or even access an LDAP address book on the Communicate Server.

Finally, SuSE's Openexchange Server is a stable and well-written piece of Groupware, although it currently does not qualify as a genuine replacement for Exchange. Its weak point is the Outlook replicator that lacks a realtime MAPI connector. The connector will be available as of this year's CeBIT, but it still raises the question why so many products are released before they are ready for the market? ■

Port	Local Address	Init SSL/TLS	Remote Address Restrictions
143	all addresses	off	Grant 10.0.0.81-10.0.0.90; internal LAN 10.0.1.12; gateway
993	all addresses	on	None
0	all addresses	off	None

Figure 7: Multisocket listening is easily configured under the Communicate Pro product. This makes the software more flexible to your specific needs

INFO

- [1] Amavis Linux software for SuSE Openexchange: http://sdb.suse.de/de/sdb/html/rsimai_slox_amavis.html
- [2] SuSE migration program: http://www.suse.de/en/business/products/suse_business/openexchange/misc/ms_exchange_migration.pdf
- [3] N&H Exchange component Bill Workgroup: <http://www.billworkgroup.org>