SuSE Linux

Openexchange Server 4.1

Administration

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Please direct suggestions and comments to documentation@suse.de

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This book has been printed on 100 % chlorine-free bleached paper.

Contents

The SUSE LINUX Openexchange Server

The SUSE LINUX Openexchange Server is a comprehensive communication and groupware solution. It is useful for administration, work groups, small and middle-sized businesses, and even enterprises with thousands of work places. Users have the most possible independance, as they can access the full groupware functionality over the Internet or company LAN with any e-mail client.

The funtional range is centered around what businesses and their users need today:

- Professional communications based on open standards
- Access to all functionalities over the Internet
- Independance from the client's operating system
- Intuitive user interface
- Creation of a homogenous and ergonomical platform for the communication

This manual provides information about the installation, server administration in the web interface and configuration of external e-mail clients. The *User Manual* describes use and configuration of the Groupware. ferrariFAX and DyCE Instant Messenger are explained in their respective manuals.

Support Services

SuSE Support Services offer a complete range of support services in connection with Linux. No matter whether you have questions on the installation of SuSE Linux products or need to tackle an obstacle in your mission-critical IT solution, our service models adapt to your specific requirements.

2.1 Scope of the Product Support

Product support covers the installation of the SUSE LINUX Openexchange Server 4.0 on hardware (one computer) supported by the basic system. This support includes the installation of the basic hardware and the following devices using the configuration tool YaST:

- graphics card (without 3D support, without TV in/out)
- a network adapter (ethernet)
- DSL (PPP over ethernet)
- ISDN adapter or modem for dial-up connections to a provider (IP)

Support for configuring the following items is included:

- Basic configuration of external mail clients
  - KMail beginning with Version 1.3.1
  - Mozilla Mail beginning with Version 1.0
  - Netscape Messenger beginning with Version 4.7 and Mail 6.1

- Microsoft Outlook 2000/XP
- Microsoft Outlook Express beginning with Version 5.5
- Pine beginning with Version 4

- Basic configuration of the integrated name service (one zone)
- Basic configuration for protecting against unsolicted commercial e-mail (SPAM)
- Configuration for the servers to use SMTP-AUTH (as server and client)
- Support for the installation of a virus scanner (AMaViS or AVMailGate)
- Support for the setup of a content filter based on file extensions (attachment filter) using Postfix
- Support for changing the host name and the IP address
- Hints for using functions offered by the web front-end

2.2 Maintenance for the SUSE LINUX Openexchange Server

The included maintence for the SUSE LINUX Openexchange Server is an active maintenance contract and offers preventive support to satisfy your IT demands. You obtain the following services to guarantee a maximum of comfort and a state-of-the-art system:

- Fixes and patches for all packages included on the installation medium to correct critical defects (security, data loss) of the SUSE LINUX Openexchange Server
- Every patch contains detailed documentation.
- You will be informed about patches by the SuSE Enterprise Support Services by e-mail.
- The patches will be uploaded to a secure web server for your use.
- Support for installing the patches by the SuSE Enterprise Support Services.

After registering your SUSE products on our portal, use the login and password also for YaST Online Updates (YOU) and general maintenance access, like reading patch descriptions.

If you have already registered products with SUSE, the old maintenance web access data will remain valid until you register those products again at: `http:portal.suse.de`

If using YaST Online Update for maintenance updates against the recommendation in the patch descriptions, follow the instructions given in the YOU dialogs exactly. Additionally, read the patch descriptions on the maintenance web, still available at `http://support.suse.de/psdb/`.

Enter your login and password for access to the patch support database (PSDB). In the near future, the maintenance web will be moved to the SUSE portal. For further information, also consult our product-specific mailing lists at `http://lists.suse.com`. Find the list archive for the SUSE LINUX Openexchange Server at `http://lists.suse.com/archive/suse-slox-e/`.

2.3 Product Registration

Register your product online on our web portal at `http://portal.suse.com`. Click 'Sign up here' and fill out the web form. Enter the login name to use to access the mainenance web and portal. The automatically generated password will be sent to you by e-mail. It may take up to thirty minutes until your login is activated. Then, log in to the portal and click 'Product Registration'. Enter the 14-digit registration code, which you can find in an envelope or on the back of your CD case. If you log in again later, all registered products will be displayed with their product code for support requests.

2.4 Support Requests

Enter support requests in the support forms on the SUSE portal, send them by e-mail, or call the hotline. Our support team will process requests in English and German.

2.4.1 SUSE Portal

After having registered your SUSE product, log in to the portal at `http://portal.suse.com` and fill out the support web form following the given directions.

2.4.2 E-Mail

Support requests may be sent to `support@suse.de` Provide your customer data before describing your problem as in the following example:

```
FIRSTNAME: John
LASTNAME: Doe
COMPANY: Example, Inc.
STREET: Hypothetical Drive 7
CITY: Example City
ZIP: 12345
COUNTRY: USA
REGCODE: <Registration code>
EMAIL: doe@example.com

My Problem: Problem description ...

My Hardware: Hardware description ...

<doe@example.com>
```

2.4.3 Telephone

In urgent cases, reach the support team by phone at the following numbers:

Germany:	0180 500 3612	12 ct/min
Austria:	0820 500781	14.5 ct/min
Switzerland:	0848 860847	costs depend on provider
Others:	+49 180 500 3612	costs depend on provider

2.4.4 By Mail:

In Germany, until end of 2003:

SUSE LINUX AG
Business Support
Deutschherrnstr. 15-19
D-90429 Nürnberg

In Germany, in 2004 and later:

SUSE LINUX AG
Business Support
Maxfeldstraße 5
90409 Nürnberg

In Great Britain

SUSE LINUX Ltd.
The Kinetic Centre, Theobald Street
Borehamwood, Herts. WD6 4PJ

In the USA

SUSE Inc.
318 Harrison, #301
Oakland, CA 94607

2.5 License and Maintenance Extension

Additional products to be integrated in the SUSE LINUX Openexchange Server may be obtained from our partners listed at `www.suse.de` under `Partners`. The SUSE LINUX Openexchange Server technology partners are listed at:

`http://www.suse.de/de/business/products/suse_business/openexchange/`

2.6 Support Database

Register all your SUSE products and you can access the respective support database articles at the SUSE Portal. Registration forms and the support database are available at `http://portal.suse.com`.

Preparing for Installation

The SUSE LINUX Openexchange Server is a powerful product based on the SuSE Linux Enterprise Server. It is designed to provide a powerful and complete e-mail server without requiring intensive configuration. It is important, however, to plan the system before installing. This allows for a smooth installation and prevents problems in the future.

3.1 Choosing a Host Name and Domain

Consider the name of your SUSE LINUX Openexchange Server carefully. Changing the host name or the domain name after installation is very time-consuming. The SUSE LINUX Openexchange Server can also function as a name server for your intranet. A correctly configured name service (DNS) is vital for the faultless functioning of the mail server.

Even if your domain is not directly reachable from the Internet, assign your intranet a sensible domain name. Names like "company.local" are not sensible choices, because an e-mail sent to `user@company.local` from outside the system cannot be delivered. A domain like `company.com` has the advantage that nothing stands in the way of your business's new web presence. Make sure the name chosen is not already used by someone else. Use a web browser to check whether the chosen domain exists already by simply entering it in the address bar of your browser (it may need a prefix of `www.`). Additional information can be found in the respective databases. Refer to `http://www.internic.com/whois.html`.

3.2 Migrating from SuSE Linux eMail Server 3.1

Caution

You cannot adopt the data of your old SuSE Linux eMail Server Version 3.1 using the SuSE Linux Update mechanism into your new SUSE LINUX Openexchange Server 4.0. To transfer the data and configuration to the new SUSE LINUX Openexchange Server, follow the instructions below. The partially automated update described here is **only** possible when applied to the SuSE Linux eMail Server 3.1. SuSE is not responsible for data lost during the system update. Save all data to an external medium before installing the SUSE LINUX Openexchange Server.

Caution

Updating to the SUSE LINUX Openexchange Server 4.0 is a four step process:

1. backup data
2. install
3. apply available patches

4. restore data

When restoring the data, it is not copied unmodified. It must be converted for the SUSE LINUX Openexchange Server 4.0 using the provided `restore.sh` script. For this to work, the data must first be copied unmodified to the temporary directory `/tmp` of the newly installed SUSE LINUX Openexchange Server 4.0. In a second step, it is converted and moved to its final location.

Caution

When updating to SUSE LINUX Openexchange Server 4.0, ensure that enough space will be available after the installation in the temporary directory. At least as much space is required as the original data occupies.

Caution

Most of the space is used by the e-mails of the IMAP server. To find the approximate size, use the following command:

```
du -skc /var/imap /var/spool/imap
```

You should see output like the following:

```
405     /var/imap
181178  /var/spool/imap
181583  total
```

The disk space is given in kilobytes. In the example above, the mails use approximately 177 megabytes (181178 KB/1024 = 177 MB).

The following assumes the default directory `/tmp` is used as the temporary directory.

3.2.1 Backing Up Data

Before installing the SUSE LINUX Openexchange Server 4.0, log in as the user `root` on the old SuSE Linux eMail Server. Insert the first CD (CD 1) of the SUSE LINUX Openexchange Server 4.0 and mount it by typing `mount /cdrom`. Copy the backup program with the following command:

```
cp /cdrom/backup.sh /tmp/backup.sh
```

Make it executable by typing `chmod u+rx /tmp/backup.sh`. Usually, the external medium used to save the backup is a streamer. For the first SCSI streamer

`/dev/st0`, use the following command:

```
/tmp/backup.sh -tz /dev/st0
```

After the backup is complete, the streamer rewinds the tape. Check whether the backup is readable by typing:

```
tar tzf /dev/st0
```

If you cannot access a streamer directly, you can put the backup into your temporary directory under the file name `/tmp/backup.tar.gz` and later save this file to another convenient medium. To do this, run the script as follows:

```
/tmp/backup.sh -tz /tmp/backup.tar.gz
```

Note

The command line option `-t` allows passing further options to the `tar` command called by the backup script, e. g., option `-tzv` creates a gzip-compressed (option z) `tar` archive in verbose mode (option v). Without the `-tz` option, the tar archive will not be compressed.

Note

After saving the data to an external medium and checking the backup, you are now ready to install the SUSE LINUX Openexchange Server 4.0 in place of its predecessor.

3.2.2 Install

When installing the new SUSE LINUX Openexchange Server 4.0, pay close attention to the following three items:

- Reformat the old eMail server partitions during the installation. Otherwise, this may lead to problems. If you saved the backup on another partition solely used for this purpose, make sure you do not format it.
- The host name must be **exactly** the same as with the SuSE Linux eMail Server 3.1, including the domain part. If your old SuSE Linux eMail Server was called `mail.company.com`, call the new server `mail.company.com`.
- The LDAP BaseDN must also be **exactly** the same as in the old SUSE LINUX Openexchange Server. Otherwise your old data cannot be integrated properly.

Note

Before restoring all data, apply all patches.

Note

3.2.3 Restoring Data

After the installation, start the script `/usr/share/doc/packages/imapweb32/tools/restore.sh` without arguments. This gives output like:

```
/usr/share/doc/packages/imapweb32/tools/restore.sh -x file.tgz [-t flags]
    -x extract
    -t with additional flags "flags" for tar
 or

/usr/share/doc/packages/imapweb32/tools/restore.sh [-i] [-p]
[-l] [-f] [-c] [-g] [-n] [-a]
    -i restore only imap folder
    -s restore only sieve mail filter rules
    -l restore only ldap directory
    -f restore only fetch accounts
    -c restore only CA and certs
    -g restore only Groupware data
    -n restore only DNS data
    -a restore all
```

Output 1: *Output of restore.sh*

First, store your backup using the `-x` option and the `-t` option with which you created the backup (usually `tz`) in the temporary directory `/tmp/imapbak` from which the data will be converted and, in a second step, restored in its proper directory. This requires sufficient disk space in the temporary directory.

If the backup file was saved on a streamer that is directly accessible, insert the tape into the streamer. For the first SCSI streamer `/dev/st0`, use the following command:

```
/usr/share/doc/packages/imapweb32/tools/restore.sh -x /dev/st0 -tz
```

If you cannot access a streamer directly, copy the backup file to the file `/tmp/backup.tar.gz`. Recreate the backup with:

```
/usr/share/doc/packages/imapweb32/tools/restore.sh -x
/tmp/backup.tar.gz -tz
```

In this case, you need enough disk space in the temporary directory to both hold the backup file `/tmp/backup.tar.gz` and to recreate the backup.

A few options are available for converting and restoring the old data. Recreating some areas can take a considerable amount of time.

Explanation of the options:

-i Only e-mails and the user structure of the "cyrus-impad" are restored. This includes all folders and subfolders of each user and the quota information.

-s Only mail filters, vacation notices, and manually written SIEVE scripts are restored.

-l Only data of the LDAP directory is restored. For this to work, you must enter the password for the user `cyrus`. If you enter the wrong password, run restore again giving the option `-l`.

-f Restore the data of the "Fetch Mail" interface

-c Restore the CA and certificates

-g The groupware data (appointments, jobs, address books) are converted and adapted to the new groupware. For this step, the password for the administrator (`cyrus`) is needed as well.

-n Restores the name server's (DNS) configuration

-a All steps mentioned above are performed one after another.

In Case of Problems

If some information was not correctly restored, you can use the backup file created by `backup.sh`. The data needs to be transferred manually. The backup file is a compressed `tar` archive and can be accessed directly with the `tar` command.

3.3 DHCP and Installation

IP address and host name for the SUSE LINUX Openexchange Server can be assigned during installation via DHCP. This only works if the DHCP server additionally transmits, as well as the IP addess, the complete host name including the domain.

Note

The name of your SUSE LINUX Openexchange Server may not change. Additionally, the server will not work correctly if the DHCP server cannot be contacted while booting or if it assigns a different host or domain name to the server.

Note

If the clients are configured via DHCP as well, the DHCP server or a configured DNS server must perform the name resolution for the local network. It must also be known to the SUSE LINUX Openexchange Server as name server.

Scenarios

Review your network layout before beginning the installation. The following is an overview of possible topologies, which can assist in making appropriate selections during installation. A network interface can be an ethernet connection (network card) or a PPP connection (modem or ISDN). Configurations other than those listed are also possible.

The following are options for operating the SUSE LINUX Openexchange Server with only one network interface.

4.1 Intranet Only

The SUSE LINUX Openexchange Server is only available in the local network and was not assigned a public IP address. No mail should be sent to other networks. This setup is shown in Figure 4.1.

Because you will not connect to another network, you do not need a default gateway. For contacting another network segment, the router between the networks is the default gateway. Use the SUSE LINUX Openexchange Server as DNS for your local network or use an existing name server. No relay host is needed.

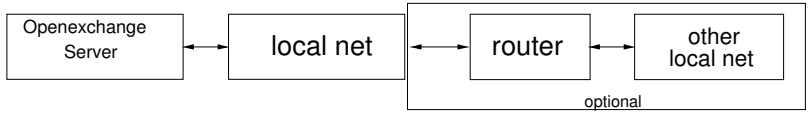

Figure 4.1: *SUSE LINUX Openexchange Server in the Intranet Only*

4.2 Intranet with a Router to the Internet

The SUSE LINUX Openexchange Server is only available in the local network and has a private IP address. It can connect to the Internet via an accessible router in the local network. This layout is shown in Figure 4.2 on the next page.

The default gateway in this example is the router's address. Either use the SUSE LINUX Openexchange Server as DNS or another DNS in your local network. Additionally, it is reasonable to add a second DNS as "forwarder" in the `/etc/named.conf` — either one that can resolve other external addresses or simply the provider's name server. Usually, you must enter the provider's relay host to send mail to the Internet. Configure your router accordingly.

4.3 In the DMZ

The SUSE LINUX Openexchange Server is part of a DMZ (DeMilitarized Zone) and is protected by a firewall. This layout is shown in Figure 4.3. The SUSE

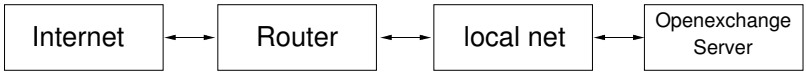

Figure 4.2: *SUSE LINUX Openexchange Server Connected to the Internet via a Router*

LINUX Openexchange Server does not include a firewall. Set it up seperately.

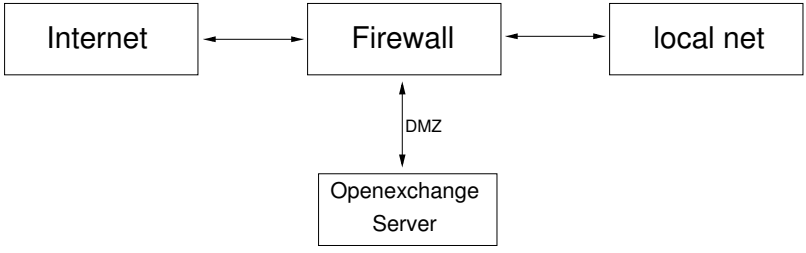

Figure 4.3: *SUSE LINUX Openexchange Server in a DMZ*

Use, for example, the SuSE Firewall on CD to operate the SUSE LINUX Openexchange Server in a DMZ. The SUSE LINUX Openexchange Server should have its own IP address. In this case, you must configure the firewall to enable forwarding of data from and to the SUSE LINUX Openexchange Server. The default gateway can, for example, be the firewall server. SuSE Firewall on CD comes with an SMTP proxy server as well.

Installing with YaST2

The following pages describe how to install and configure the SUSE LINUX Openexchange Server with YaST2.

5.1 Booting from the CD-ROM

Insert your CD-ROM into the CD-ROM drive and boot the computer. SuSE Linux should now be loaded for installation.

If the computer does not boot from the CD-ROM, change the computer's BIOS settings.

5.1.1 For an EIDE (ATAPI) CD-ROM Drive

On boot, the hardware is initialized by the BIOS. Among other things, the computers memory is checked. During this process, identifiable by the count of system memory, it is possible to enter the BIOS setup. At the lower border of the display, directions for entering the BIOS Setup are shown. Usually, access the setup by pressing either Del or F1. Press the corresponding key to enter the BIOS setup.

If your computer has an AWARD BIOS, the entry to choose is called BIOS FEATURES SETUP. Other manufacturers use similar entries, such as ADVANCED CMOS SETUP. Choose the corresponding entry and confirm your selection by pressing ↵. An entry with a name like 'Boot Sequence' details the drive's starting order. The default is often C, A or A, C. In the first case, the computer look for the operating system first on the hard disk (C) then on the floppy disk (A).

Choose 'Boot Sequence' and press Page ↑ or Page ↓ (or something similar, depending on your BIOS) until you see a sequence in which the CD-ROM is

searched before the hard disk, e. g., `A, CDROM, C`. Press Esc to leave the menu. To save your changes. choose 'SAVE & EXIT SETUP' or press F10. You will then be asked whether you want to leave the BIOS setup and save the settings.

Note

An American keyboard layout is normally used in the BIOS.

Note

5.1.2 For a SCSI CD-ROM drive

During boot, the hardware is initialized by the BIOS. Among other things, the computer's memory is checked and counted. Then the SCSI host adapter is initialized. Access its BIOS by pressing the required key, which is displayed on the screen. For an Adaptec host adapter, the key combination is usually Ctrl + A.

Choose 'Disk Utilities'. The system will check then display the available hardware. Note the SCSI ID of your CD-ROM drive. Press Esc to exit the menu. Next, choose 'Configure Adapter Settings'. In 'Additional Options', find the 'Boot Device Options'. Choose that and press ↵. Enter the ID of your CD-ROM drive then press ↵. Press Esc twice to reach the start menu of the SCSI BIOS. Exit and save the settings. The computer will now reboot.

The welcome screen opens and the installation begins.

5.2 Welcome Screen

Initially, you will see the welcome screen. Unless a key is pressed, the default selection 'Installation' starts after a few seconds. A minimal Linux system is loaded into your computer's main memory. The rest of the installation runs on this system. On the screen, some messages and copyright notices appear. After loading the system, YaST2 is started and its graphical interface appears in SVGA (800x600) graphics. If it encounter problems, abort the process and reboot. In this case, you should choose another option instead of the default selection.

If you press anything during the idle time, nothing is started automatically. These other options are usually needed only if you have problems with the graphical display.

5.2.1 Different Graphics Modes for YaST2

Use the function keys to choose the VGA (640x480) graphics mode, which should work with any graphics card. If all else fails, choose the text mode. In the text mode of YaST2, move from menu item to menu item by pressing Tab. Inside a menu, select an entry with ↑ and ↓. Pressing ↵ continues to the next menu.

5.2.2 Kernel Parameters

Enter the specific kernel parameters, which are usually needed only for special hardware components, next to the 'boot:' entry after the name of the system to boot.

5.2.3 Further Options

With ↑ and ↓, choose from additional options. If you choose 'Manual Installation', a text-based version of YaST2 is started. This is usually only necessary if the computer has less than 64 MB of main memory. 'Rescue System' starts a rescue system that can help recover a damaged system.

5.3 YaST2 Takes Over

Now the actual installation with the installation program YaST2 begins. It will guide you through the installation procedure. The menus of YaST2 follow a consistent pattern: all text fields, choices, and buttons of the YaST2 screens can be controlled with the mouse.

If your cursor does not move, your mouse was not detected automatically. Use the keyboard in this case. When navigating with the keyboard, use the arrow keys to move within a selection area. Use Tab to move from one selection area, field, or button to the next. Press ↵ to activate a selected button.

5.4 Language Selection

Select your preferred language to use during the installation and in the installed system. This can be changed later, if needed. YaST2 uses this setting to select a default keyboard layout and time zone. These settings can also be adjusted.

5.5 Installation Proposal

After the hardware detection, information about the detected hardware and suggestions on the installation and partitioning are displayed in the proposal window. To change a setting, click the module. After completing the changes, YaST2 returns you to the proposal window and displays the new values. If the mouse does not work, you can now select the mouse configuration. The following sections detail the configuration possibilities.

5.5.1 Mode

This should always be set to 'New installation'. Do not make changes here.

5.5.2 Keyboard Layout

Choose the desired keyboard layout in this form. Test special characters, Ⓩ, and Ⓨ to verify that the layout is correct. Click 'Next' to return to the proposals.

5.5.3 Mouse

If YaST2 did not detect your mouse correctly, move the focus with Tab until 'Change' is highlighted. Next, press Space and use the arrow keys to select 'Mouse'. Press ↵ to open the mouse configuration window, shown in Figure 5.1 on the next page.

To select the mouse type, use ↑ and ↓. Refer to your mouse documentation for details. Confirm the selection by pressing Alt + Ⓣ or by pressing Tab then ↵.

Test the mouse. If the mouse cursor now follows the mouse movements, this installation step was successful. If the cursor still is not moving, choose another type and retry.

5.5.4 Partitioning

During the installation, divide the available disk space into sections, called "partitions". This process is called "partitioning". Depending on your hardware, YaST will submit a partitioning suggestion that is perfectly suitable for SUSE LINUX Openexchange Server. If you do not like the suggestion, change it manually.

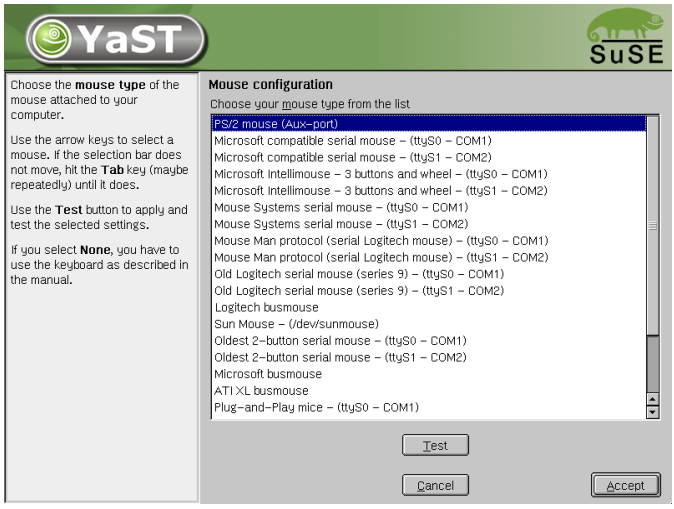

Figure 5.1: *Choosing a Mouse Type*

5.5.5 The Partitioner of YaST2

In the 'Partitioning' module, modify the suggestions of YaST2 or prepare a new partitioning scheme. In 'Partition according to your own wishes', all hard disks found in the system are listed. Select the hard disk on which to install the system (see Figure 5.2 on the following page or partition your hard disks manually.

Caution

If you select 'Use entire hard disk', all data on this hard disk will be lost when the actual installation is started.

Caution

5.5.6 Manual Partitioning

With the partitioning tool, shown in Figure 5.3 on page 27), you can manually change the partitioning of your hard disk. You can add, delete, and edit partitions.

In the suggestion screen, select 'Partitioning'. In the following window, select 'Partitioning based on the suggestion'. The partitioning tool lists the hard disks and all existing or suggested partitions. Disks are represented as devices without numbers, such as `/dev/hda` or `/dev/sda`. Individual partitions are represented as parts of these devices, such as `/dev/hda1` or `/dev/sda1`. Important

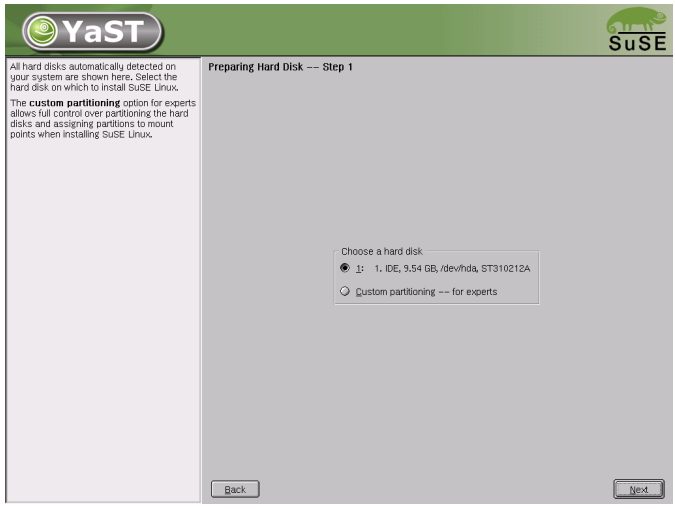

Figure 5.2: *Choosing the Installation Disk*

parameters, such as the size, type, file system and mount point, are displayed for disks and partitions. The mount point describes where the partitions are attached in the Linux directory structure.

To create a new partition, click 'Create'. If several hard disks are available, select the correct hard disk. Subsequently, a dialog asks for the partition type. Create up to four primary partitions or three primary partitions and one extended partition. In the extended partition, you can create several "logical" partitions.

Next, select the file system for formatting the partition and a mount point, if necessary. YaST proposes a mount point for every new partition. Details for the parameters are presented below. Click 'OK' to apply the changes.

The new partition will be listed in the partition table. Click 'Next' to confirm your selection. To mount a new partition in the file system tree, select it and click 'Edit'. Then set the following parameters:

File System ID Select "Linux swap", "Linux", "Linux LVM", or "Linux RAID" as the partition type.

File System Choose the file systems according to your needs. "ext2", "ext3", and "reiser" are some of the most widely used file systems. The "ext2" file system has the longest history in Linux and is renowned for its maturity and stability. However, for large amounts of data and large hard disks,

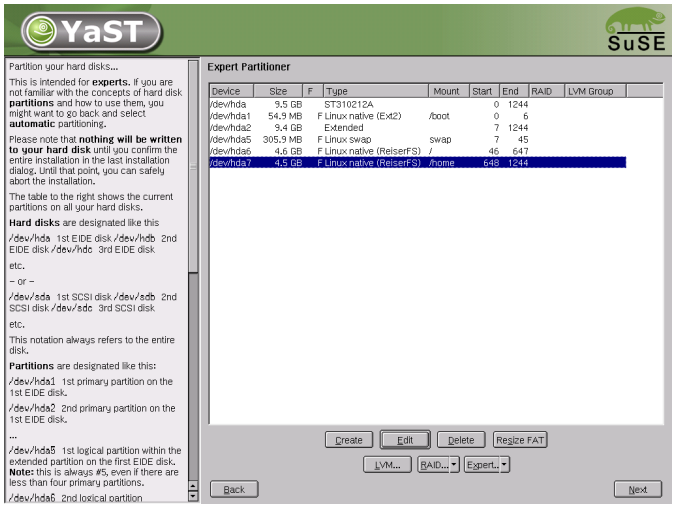

Figure 5.3: *The Partitioning Tool of SuSE Linux*

a “journaling” file system like “ext3” or “reiser” is more efficient. As a general rule, “ext3” is more suitable for few large files, while “reiser” is faster and consumes less storage space for many small files.

Caution

All file systems must be mounted with the `fstab` option `acl`. Furthermore, `/home` must be mounted with the `fstab` option `usrquota`.

Caution

Mount Point Specifies the directory in which the new partition is mounted in the file system tree.

Click ‘Next’ to save the partitioning settings. You will be taken back to the suggestion screen.

5.5.7 A Suggestion for Partitioning

Dividing the disks in the following partitions has proved itself useful:

- A swap partition twice the size of your main memory, which can be used to swap out data from the main memory as needed. This partition must be formatted as a swap partition.
- A root partition on which to store all system data, such as programs and configuration files. A minimum of 1.5 GB is required for the SUSE LINUX Openexchange Server, as approximately 1 GB of software will be installed and enough disk space for temporary files is needed. Use `/` as the mount point.
- A separate partition for `/var` is recommended. If you select `reiserfs` or `ext3`, enter the `fstab` parameters `writeback, noatime`. The SUSE LINUX Openexchange Server saves all mails and user data in the `/var` directory. Placing this on a separate partition prevents a sudden increase in mail load from influencing the function of the basic system. It can also be advisable to break `/var` into multiple partitions, for example:

  /var/spool/imap Below this directory, all users' mail is placed. Make sure this partition is large enough. Stored mail can quickly amount to several gigabytes with several users.

  /var/log The SUSE LINUX Openexchange Server places the log files of the different services here.

  /var The LDAP server's data is placed here.

5.5.8 Software

The software for the SUSE LINUX Openexchange Server is preselected. You cannot make changes here.

5.5.9 System Start

If desired, enter custom settings for the boot loader GRUB here. For a standard installation, no changes are needed.

5.5.10 Time Zone

In this dialog, illustrated in Figure 5.4 on the facing page, first select the time zone for your system from the list of countries. Then, select the time setting in the field 'Set system clock to' based on your BIOS clock. If you choose `GMT` instead of `Local time`, SuSE Linux ensures proper correction is made for the local time zone.

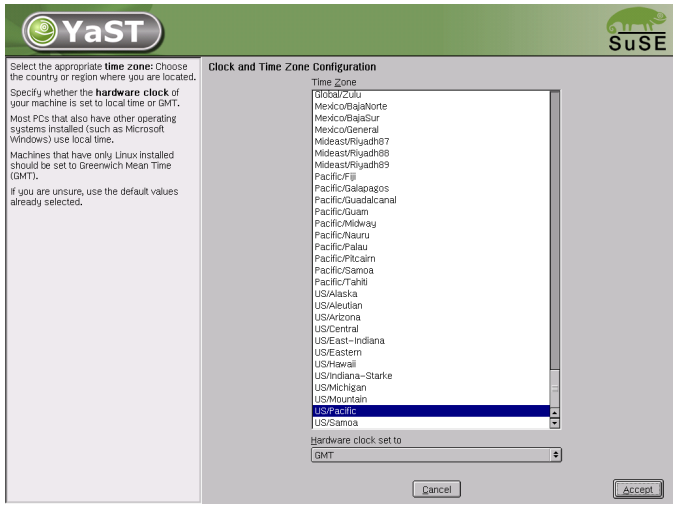

Figure 5.4: *Selecting the Time Zone*

5.6 Starting the Installation

Click 'Next' to accept the proposal with all your changes. In the green confirmation dialog that opens, select 'yes' to begin installing the system. The installation will take, depending on the software selection and the speed of the system, between fifteen and thirty minutes. During the installation, additional information about SuSE products is displayed. Click 'Details' to view information about the installation instead.

5.7 Configuring the System

After installing the software packages, make some important settings for the SUSE LINUX Openexchange Server.

5.7.1 Root Rassword

`root` is the system's administrator or superuser. Only this user can modify the system, install new programs for all users, or add new hardware. `root` also has the power to change passwords for users or assist with other problems.

Only log in as `root` to perform administrative tasks, like maintenance and repair. For day to day use, this is not recommended. As `root` can easily make changes that could damage the system, logging in as `root` for regular use is a security risk.

Enter the password for `root` twice as shown in Figure 5.5. As this password cannot be retrieved or viewed at a later time, remember it carefully.

Caution

Administrative tasks can only be performed as `root`. The password is required before any changes can be made.

Caution

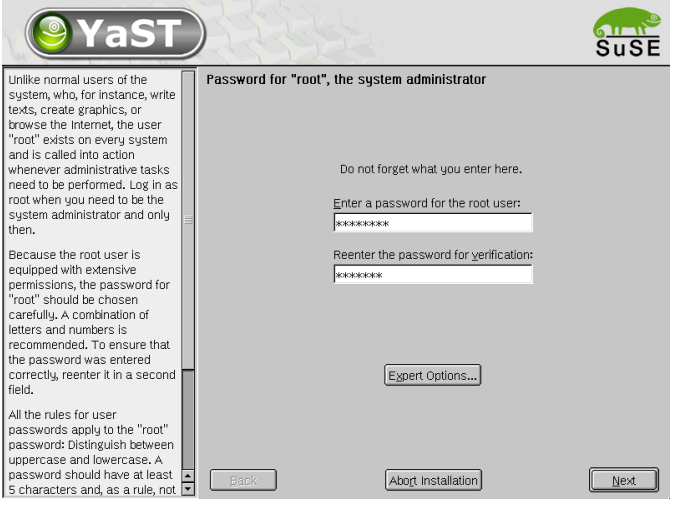

Figure 5.5: *Entering a Password for root*

5.7.2 Screen Configuration

Information about the graphics card and screen are displayed along a reasonable configuration for both. In most cases, accept the suggestion. If preferred, specify color depth, resolution, and refresh rate manually. If you change the proposal, test the new settings before writing the configuration to the disk.

Click 'Edit' to configure the graphical interface. This starts the program SaX2.

5.8 Hardware Configuration

Figure 5.6: *Configuring the System Components*

Set up your computer's hardware, such as network interfaces and printer, in the dialog shown in Figure 5.6. Click a component to start the hardware configuration.

To configure the network device, click 'Network interfaces'. Usually, YaST2 detects the network interface automatically and creates a basic configuration with automatic address assignment via DHCP. This only works for the SUSE LINUX Openexchange Server if there is a DHCP server present in the network that is configured to assign the same IP address and host name to the SUSE LINUX Openexchange Server every time. Just having a DHCP server is not enough.

5.8.1 Static Network Configuration

Use of a static IP address is advised. Click 'Change' and choose the network interface from the next screen and click 'Edit'. In the dialog that opens, click 'Configuring the static address' and enter the corresponding values in 'IP address' and 'Subnet mask'.

Next, click 'host name and name server' to enter the host and domain name of your SUSE LINUX Openexchange Server. Entering values for the name server

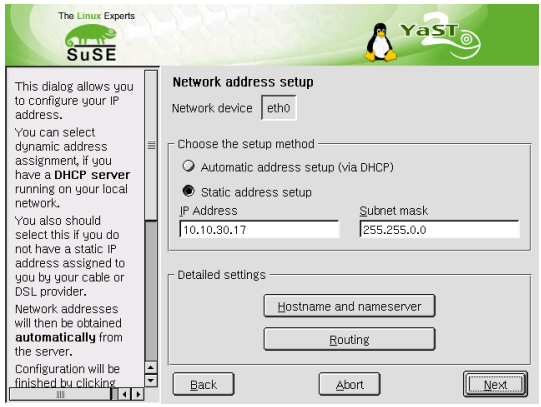

Figure 5.7: *Configuring the Network Address*

and domain search list is not necessary, as the system will be configured to use the local name server. Click 'Next' to save the settings. In 'Routing', enter the IP address of your default gateway. Click 'Next' to continue configuration.

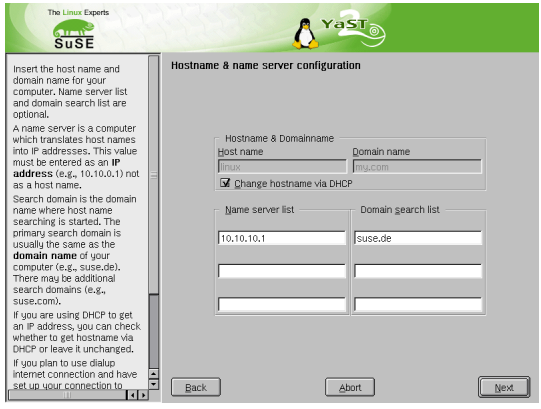

Figure 5.8: *Configuring Host Name and Name Server*

5.9 Server Configuration

In this dialog, assign your SUSE LINUX Openexchange Server as name server, DHCP server, or Windows server. Check the repective boxes to define the server's role in the network. To set up the server for use by Windows clients, activate 'Windows Server' and enter the desired workgroup's name. Additional information about this is available in Section 6.11 on page 73.

In the following dialog, leave the default value for the 'LDAP BaseDN'. The default setting is the domain name entered during the network configuration. Enter the company name and select the country. After you click 'Finish', the SUSE LINUX Openexchange Server basic configuration is created.

If you chose 'Windows Server', some software packages are additionally installed. Insert the appropriate CDs when prompted. After finishing the configuration, the SUSE LINUX Openexchange Server is started in its final state.

The Administrative Interface

The SUSE LINUX Openexchange Server provides a convenient web front-end for configuration and administration. Use it to manage users, groups, folders, and access permissions. Also use it to configure the various services provided by the server.

6.1 The Start Page in the Browser

First, check whether you can access the web front-end using your browser. Open a browser on one of your client PCs and enter the URL `http://serverIP`. You should then see the starting page as in Figure 6.1.

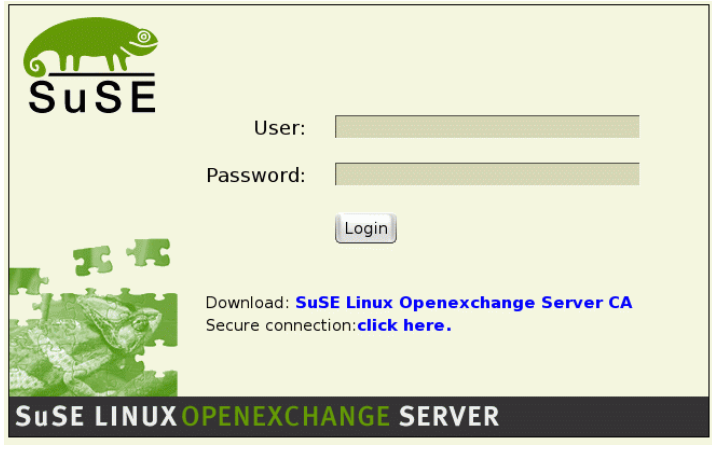

Figure 6.1: *The SUSE LINUX Openexchange Server's Start Page*

If your client can resolve the name of the SUSE LINUX Openexchange Server via DNS (Domain Name Service), instead enter the server name complete with the domain name as the URL in the format `http://server.domain.com`.

6.2 The System Administrator `cyrus`

To manage the SUSE LINUX Openexchange Server as the mail administrator, log in with the user name `cyrus` and your administration password. You can modify nearly every parameter used to configure the SUSE LINUX Openexchange Server.

Navigating the configuration menu is deliberately kept easy and efficient. The menu consists of a range of symbols. Where needed, a range of tabs appears as a submenu. Clicking a submenu opens the respective form.

To change the language, click the 'Language' icon. Click the question mark at the upper right edge of a dialog window to open relevant help texts. Click 'Logout' to close your session. You must then log in again with the user name and password to make additional changes.

Note

To administer the server, log in as `root`, but the basic configuration of the SUSE LINUX Openexchange Server must be handled using the web front-end and a browser. As `root`, you can make settings concerning the operating system, but never change values regarding the SUSE LINUX Openexchange Server. Most importantly, do *not* use YaST2 to add new users.

Note

6.3 User Management

After installing your SUSE LINUX Openexchange Server, add all users. Already present are the user `cyrus`, who may configure the SUSE LINUX Openexchange Server, and the user `mailadmin`, who can read all mails sent to the administrator.

6.3.1 Creating a New User

Select 'user' → 'New' to create the first user. A dialog like Figure 6.2 on the next page opens. Fill in the form starting with the user name (UID). The user name may only contain lowercase letters and may not contain special characters or blanks. It must be unique in the system.

If users want to have their real name as their e-mail address, use the e-mail alias of the address. This is created by default in the form `first_name.last_name@domain.com`. Additional aliases can be entered in the field 'E-mail alias' or later added in the 'Edit' menu.

The administrator must assign a password to the new user. This need not be a very secure one as the user should change it after the first login. Choose which type of encryption to use when saving the password. The older "crypt" encryption allows for a password length of five characters. "SMD5" allows up to 255. Choose the primary group to which this user should belong. Additional groups can be assigned using the 'Groups/Folders' menu. If you did not create any groups, only `Users` is available.

Optionally, grant the new user write access to the public address book. Consider the value for the `Quota`. This value specifies the maximum disk space the user may use to store mail on the SUSE LINUX Openexchange Server. If this space is filled completely, the user cannot receive mail. Old mails must then be deleted

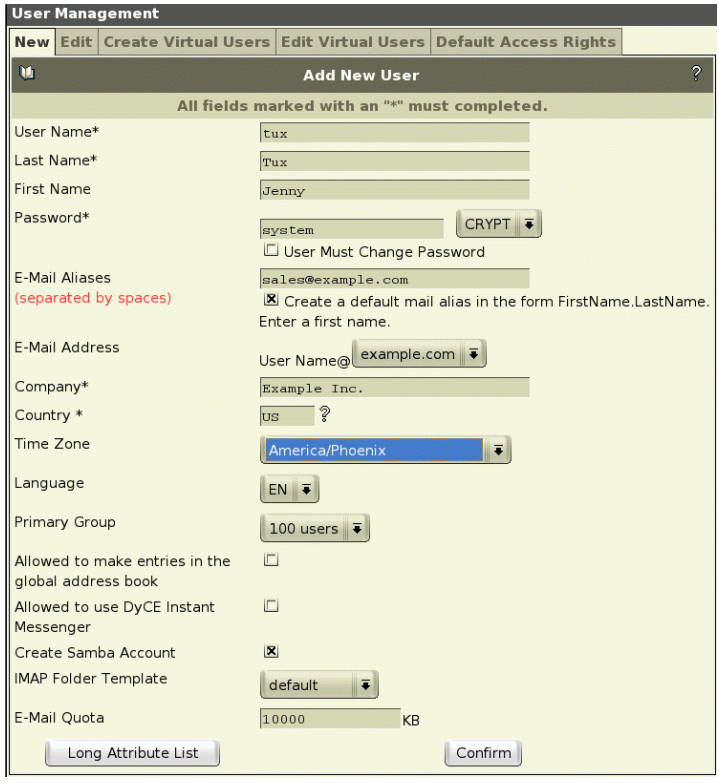

Figure 6.2: *Creating a New User*

to make more space available. This value may also be changed later. If no quota is desired for a user, delete the value and leave the field empty. Change the default value in 'Mail' → 'IMAP configuration'.

To enter other personal data, such as address and telephone number, for the user, open a list of all attributes by clicking 'long attribute list'. Now inform the new user of his user name and password. The user may log in to the web front-end of the SUSE LINUX Openexchange Server and should immediately change his password. There is no reason for the administrator to know the user's password. The administrator can assign a new password without knowing the old one.

After the user has been created, proceed automatically to the Groupware's permission management. Specify which permissions this user has in the Groupware. Checking the check box in the 'Assign permission' column gives the user

read and write access to the corresponding area. It is also possible to create profiles of common access permission combinations.

6.3.2 Modifying User Data

First, click 'Edit'. Next, specify which users to display. If you only have a few users, click 'Apply Filter' without changing the value '*' of the 'Filter' text field to list all users. Choose the user to edit by clicking it. The functions 'Delete', 'De/Activate', and 'modify access permissions' can be performed for multiple users the same time. Simply choose multiple entries from the list (keep the Ctrl key pressed while clicking the names). The names of the chosen users are highlighted. Find buttons for all functions along the right border. See Figure 6.3.

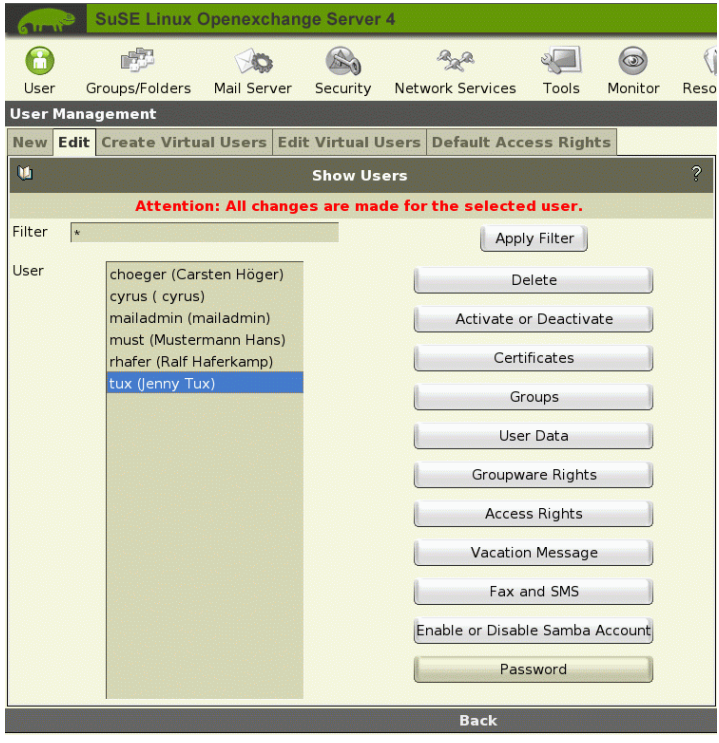

Figure 6.3: *Modifying User Data*

'Delete' Completely removes the chosen user from the server. Use this function cautiously. All this user's mail and data will be irretrievably lost.

'De/Activate' When you deactivate a user, no data is deleted. The user cannot log in or receive mail. Mail addressed to this user is rejected by the server. Deactivated users are marked with an '*'.

'Certicifates' Create a certificate for a user here if you created a "CA" (Certification Authority). Creating a user certificate is similar to creating a server certificate, explained in Section 6.6.2 on page 51. First, enter the password for the CA. In the following fields, enter the password to assign this certificate twice. Confirm all entries by clicking 'sign'.

'Groups' Assign this user to one or more secondary groups. Use your mouse to select one or more of the available groups.

'User data' This form resembles the form used for user creation. You may change all values. Additionally, you have the possibility to assign aliases to the user. Enter a list of all additional names that can be used to reach the user, separated by blanks, in 'E-mail aliases'.

'Permission management Groupware' Change the permissions inside the Groupware.

'Access permissions' In this form, limit the write access a user has to his personal data in the system's address book. View a list of all fields present in the system's address book. Choose the fields the user may change. You may also create a template defining the access permissions each newly created user has by default. Refer to Section 6.3.5 on the facing page.

'Vacation note' Create a vacation note for the user here.

'Password' Assign a new password to the user.

6.3.3 Creating a Virtual User

After creating at least one virtual domain (see Section 6.7.1 on page 52), create new virtual users by choosing 'New' and clicking 'Create Virtual User'. This opens a dialog as shown in Figure 6.4 on the facing page. If you have not created a virtual domain yet, instead be directed to the respective dialog.

Enter a 'virtual e-mail address' and choose one of the virtual domains. Click 'Apply filter' to see a list of all available users. Limit the search by entering a search filter in 'Filter'. Select the user or users (press Ctrl while selecting) that should receive mail sent to this virtual address. Click 'Create'.

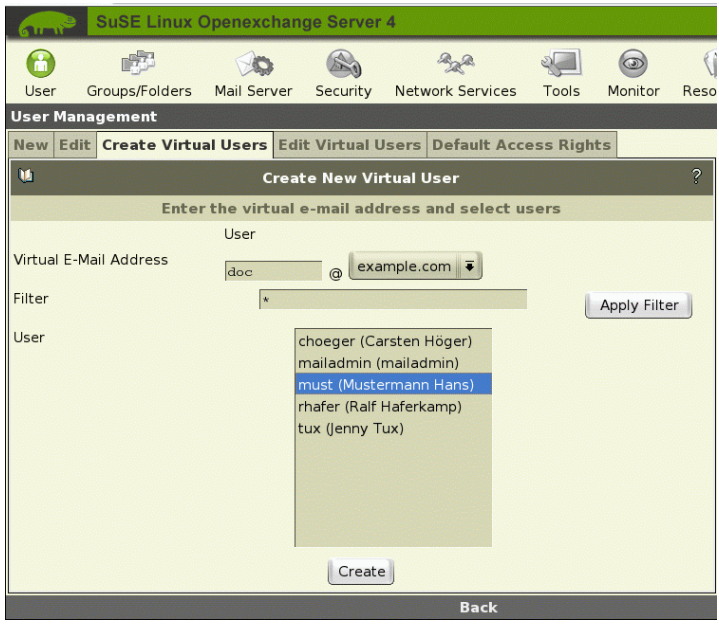

Figure 6.4: *Creating a Virtual User*

6.3.4 Editing a Virtual User

To change what user receives mail sent to a virtual user, click 'Edit' and choose the address to change. Assign the virtual address to another real address. Virtual addresses can also just be deleted.

6.3.5 Access Permissions for New Users

With 'Default Access Rights', define a template of access permissions. This template is used to initialize the access permissions a newly created user has to his personal data (first and last name, address, etc.) in the system's address book.

All settings made here are only be applied to users created later. They will not affect existing users. To learn how to change the permissions of existing users, refer to Section 6.3.2 on the preceding page.

To delete an existing template, choose 'remove default ACI'. If no template exists, all new users are given full access to their personal data.

6.4 Groups and Folders

You may assign users to groups, for example, to make the permission management of folders easier or to create a mailing list. Shared folders for multiple users or groups are also available. Using the 'direct mail delivery' feature, e-mails can be delivered to users using POP instead of IMAP, who would otherwise not have access to shared folders. Using this functionality, a mailing list can also be created easily.

6.4.1 Creating a Group

Use 'Create Groups' to create a new group. The corresponding dialog is shown in Figure 6.5). Choose a unique group name. Use only lowercase letters. No blanks and special characters are allowed in group names. Enter a meaningful description for the group.

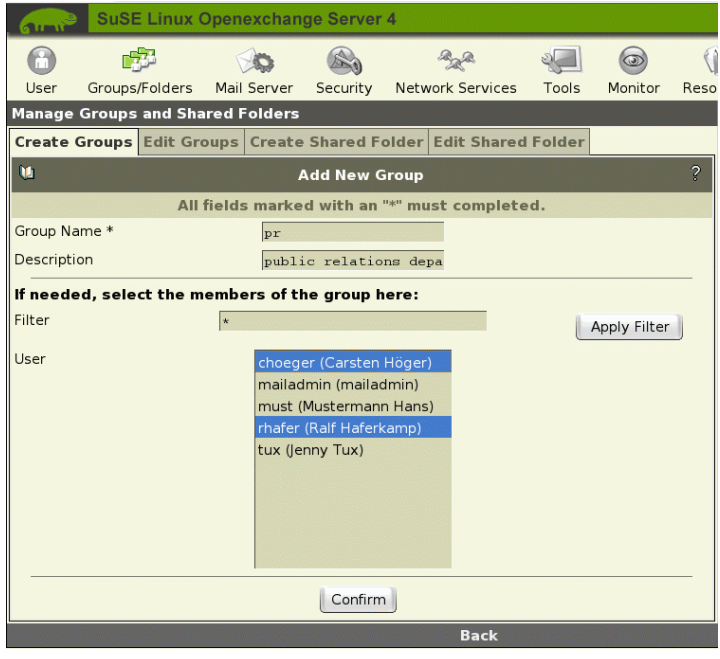

Figure 6.5: *Creating a Group*

To assign users to the group, first request a list of existing users. Click 'Apply Filter' without changing the value of the field 'Filter' to see a list of all users or

limit the search by entering a value in 'Filter'. Next, choose one or more users that should be members of the group. Chosen users are highlighted. By clicking 'Create', create the group with the selected members.

6.4.2 Editing Groups

Edit or delete existing groups or change their descriptions. Choose a group then click 'Edit' to see or modify the list of all group members. See Figure 6.6.

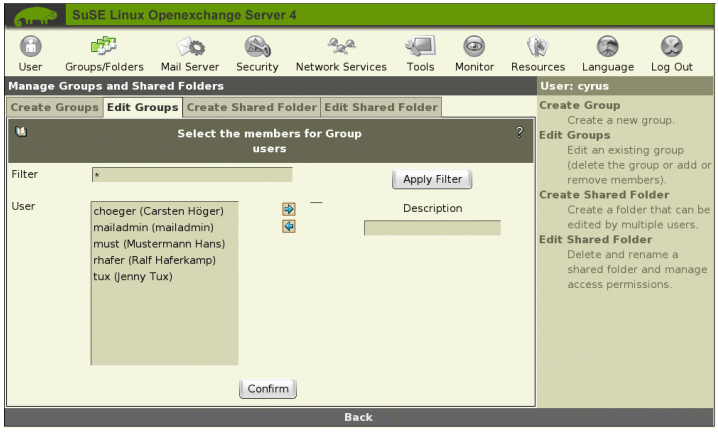

Figure 6.6: *Editing a Group*

Choose 'Apply Filter' to see a list of all system users to the left. Members of the group are listed to the right. Change the assignment using the arrow icons. Click 'Confirm' to save all changes.

6.4.3 Creating a Shared Folder

To create a new folder, choose 'create shared folder' from the menu and enter the folder's name. Only use lowercase letters. Do not use special characters or blanks. Next, enter a meaningful description for the folder. If the folder should have an e-mail address assigned to it, leave the corresponding option set to `yes`. After you click 'Create', define the access permissions for this folder.

In the form's upper part, view the permissions already assigned. The creator of the folder has all access permissions to it. This should not be changed. To assign additional permissions to others, request a user list. Click 'Apply Filter' or limit

the display by entering a value in 'Filter'. Choose a user from the drop-down list. You may also give access to an entire group. It is advisable to combine users in groups and assign permissions to groups. This makes future administration tasks easier. Clicking 'Set' adds the newly created permission settings to the upper list. You may continue defining rights or leave this form.

The permissions in detail are:

(l)ookup The folder is visible — it can be listed.

(r)ead The folder and mails it contains can be viewed.

(s)een Keep the states new and read for different users.

(w)rite Changing the message flags (new, answered, or draft) is permitted.

(i)nsert Inserting messages is allowed.

(p)ost Sending a message to this folder's address is possible.

(c)reate The user may create, rename, and delete subfolders.

(d)elete The user may delete messages.

(a)dminister It is possible to administer this folder (manage permissions).

The following combinations have proved useful in practice:

Read (lrs) Listing the folder and reading its content.

Add (lrsip) It is additinally allowed to add new messages.

Write (lrswipcd) The user may also create and delete subfolders as well as the actual folder.

Administer (lrswipcda) This contains all permissions including the possibility to assign permissions to other users or groups.

6.4.4 Editing Folders

It is possible to change the attributes of an existing folder. First, choose the folder with your mouse. The chosen folder is highlighted. Click 'Edit' to change the folder's description or whether it 'receives mail'. Then click 'Confirm'. Choose 'Set Permissions' to change the permission settings. Clicking 'Delete' deletes the entire folder and all its mails irretrievably.

A special characteristic of folders is the “Direct mail delivery”. Click on ‘Users’ to deliver mail sent to this folder to the inbox of the selected user. This is necessary for users who access the server via POP. With POP, no access to folders is possible. Choose ‘Apply Filter’ to see a list of all system users or limit it by entering a value in ‘Filter’. Selected users are highlighted. Use the arrow symbols to add users to or remove them from direct mail delivery and click ‘Save Changes’. With ‘Back’, choose another folder for editing.

‘Direct mail delivery for groups’ works the same way. All members of the group receive a copy of the incoming mail. With this function, it is very easy to create mailing lists. Simply place all members of the mailing list in one group and assign this group to receive mail directed to a folder.

For folders with direct mail delivery, external e-mail addresses can be specified, too. Click ‘External Users’ and enter the e-mail address.

6.5 Configuring Mail Components

Under ‘Mail Server’, the entire mail system can be set up. Essential settings that affect the SUSE LINUX Openexchange Server’s operation can be modified here. Only change these values if you know the consequences of the changes.

6.5.1 Postfix: Basic Functionality

In the Postfix interface shown in Figure 6.7 on the following page, configure the basic functionalities for your Internet connection. To directly edit the postfix configuration file, use the ‘Postfix for Experts’ dialog.

Name of relay host Enter the mail relay supplied by your provider. This is usually needed if you are not connected to the Internet by a dedicated line.

Dial-on-Demand If you use a dial-up line, such as ISDN, specify whether the server may initiate a dial-up if needed.

SASL Activate this field if users may log in using “authenticated SMTP”.

TLS This option is only visible if you created a “CA”. Activate it to use an encrypted transmission of mails and certificate-based relaying.

SPAM Filter Activate this option to check whether mail arriving over STMP is an unsolicited commercial mail. Mails detected as such are tagged, adding certain information to the headers. No other action is taken. Users may decide themselves what to do with a mail marked as SPAM.

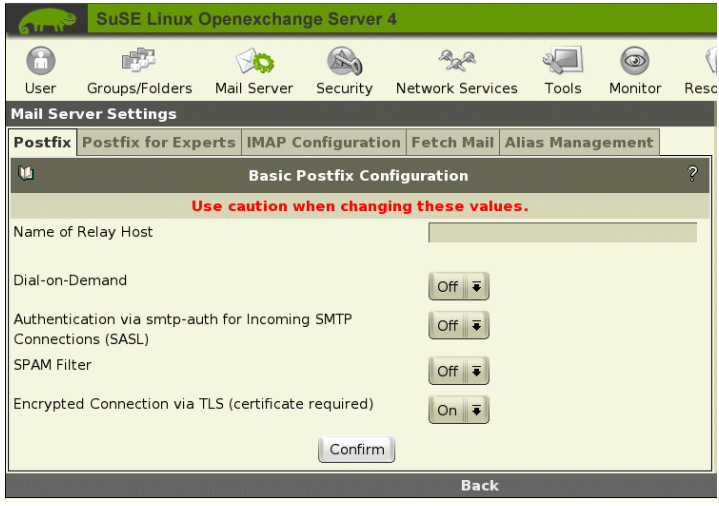

Figure 6.7: *Basic Postfix Configuration*

Virus Scanner We recommend using amavisd-postfix as virus scanner. Install the package and start the service with the command `rcamavis start` followed by the command `insserv amavis`. Only afterwards, the 'Virus Scanner' option will be displayed.

6.5.2 Postfix for Experts

In this form, nearly every Postfix parameter can be edited, removed, or added. See Figure 6.8 on the next page.

Caution

Changing values in this form without detailed knowledge about the configuration of Postfix can render your server inoperable. Only change something if you are absolutely sure of the consequences.

Caution

6.5.3 IMAP Configuration: Client Access

You may specify some fundamental settings that affect how the SUSE LINUX Openexchange Server handles clients. See Figure 6.9 on page 48. With 'Set default quota size', set the value for the suggested quota limit when creating a

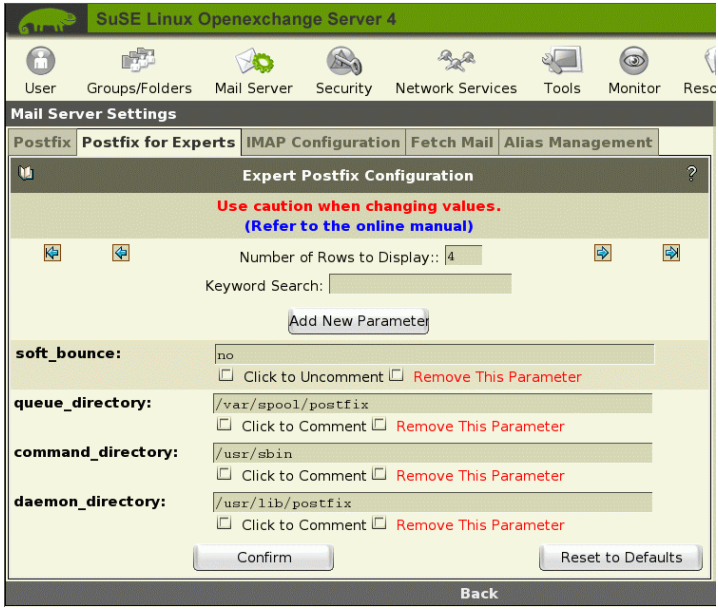

Figure 6.8: *Advanced Postfix Configuration*

user. Also decide at what point the user should be warned that he is reaching his limit.

With 'After the expiration of this time, idle IMAP users will automatically be logged out', specify how much idle time is allowed before a user is logged out. Automatic logout is useful if a user forgot to log out before leaving. Set this for accesses via POP3 by entering a value for 'After the expiration of this time, idle POP3 users will automatically be logged out'. This mainly closes open connections to the server as POP clients authenticate themselves each time they fetch mail.

Decide what happens if mail is delivered to a user that exceeded his quota limit. By default, the mail is accepted and the server repeatedly tries to deliver it in a time frame of five days, as long as Postfix's `maximal_queue_lifetime` parameter was not changed. If the e-mail still cannot be delivered when this expires, it is discarded and the sender is sent a warning. If you set 'Mail will be rejected immediately when the quota limit is exceeded' to `yes`, the mail is discarded instantly and a warning is sent to the sender.

With 'User Names with Dots', allow user names to contain dots. If you deactivate this option, users with dots in their name will be able to log in but will not

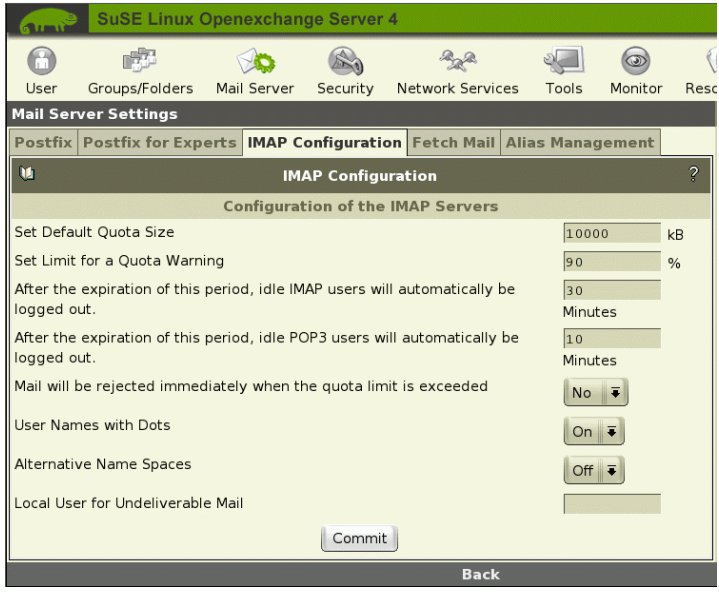

Figure 6.9: *IMAP Configuration*

have an INBOX to receive mail.

If desired, specify a local user that receives all undeliverable mail. Usually, mails to nonexistent local users are rejected and a warning with an appropriate message is sent to the sender. If you enter a local user in this field, mail addressed to nonexistent users is sent to the specified user. In this case, the sender will not receive a notification.

Note

Only enter local users here. For example, enter `mailadmin`. Do not append a domain.

Note

6.5.4 Fetch Mail

If your server has a consolidated, official IP address and your mail server it "responsible" for your domain (i. e., there is a "mx-record" present in an official name server), you will not need this functionality. Use "Fetch Mail" if e-mail ac-

counts from a provider must be accessed. Choose 'New' to add a new entry or 'Edit' to modify an existing entry.

Enter the necessary data for logging in to the remote mail server. The "Delivery address" is a complete e-mail address of a local user. This user will receive all fetched mail.

The "Protocol" is either POP or IMAP. Usually, the provider offers POP. You might need to ask whether IMAP is possible. If this is a multidrop account (mail to different users on the same domain are placed in the same e-mail account), activate the correponding option. In this case, you need not specify a "Delivery address" as the SUSE LINUX Openexchange Server delivers the mail itself. If (and only if) your provider uses QMail there is a peculiarity regarding the delivery addresses. Someone sends a mail to your company, for example, to `user@company.com`. The provider's QMail server puts something like "Delivered-To: multidrop-user@company.com" in the header. In this example, the QMail prefix would be "multidrop-". Ask your provider about the QMail prefix and, if needed, enter it in the corresponding field.

With the buttons 'On the following days', limit the requests to certain days. The interval of the requests plays an important part for "Dial-on-Demand" connections (e. g., using ISDN). To restrict costs, extend the interval duration because the eMail server must dial-up for each request.

6.5.5 Alias Management

This front-end facilitates the management of "mail aliases". Each mail recipient can be assigned an unlimited number of aliases. Use 'Filter' to reduce the display of users and aliases. Sort the list by user or alias.

Sorted by Alias

To the left, all aliases matching the search filter are listed in alphabetical order. To the right, the respective users are listed. Directly edit the alias and click 'Save'. To remove an alias or add additional users to an alias, click 'Add or Remove' to the right. This continues to another dialog in which to use the arrow keys to add existing users to the alias or remove users from the alias. If you remove all users, the selected alias will also be removed.

Sorted by User

To the left, the users are listed in alphabetical order and, next to them, the assigned alias is displayed. In this dialog, you cannot create any new aliases. To do this, go to 'User' → 'Edit'. Select the user to whom to assign a new alias and

click ‘User Data’. Enter one or several e-mail addresses (separated by spaces) and click ‘Confirm’. When you return to the ‘Alias Management’, this user will be listed together with his alias.

6.6 Security

6.6.1 SSL Configuraton: Encrypted Access

The SSL configuration splits into three areas. See Figure 6.10. Configure SSL for apache, cyrus IMAPD and Open LDAP.

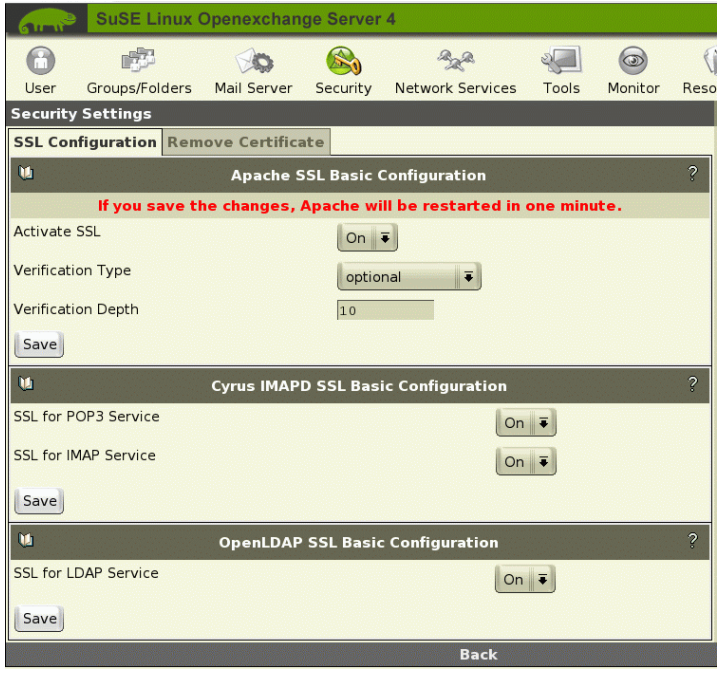

Figure 6.10: *SSL Configuration*

Basic Apache SSL Configuration

With ‘activate SSL’, enable a secure connection from your clients to the server. This is only available if you created a CA and a server certificate. Choose the type of verification:

none Client certificates are not verified at all.

optional Presence of a client certificate will be checked. However, access is granted even if no certificate is present.

require Access is only granted if the client presents a valid certificate.

optional_no_ca A client certificate must be present, but it need not be valid.

CAs can be hierarchical — a CA can be validated by another CA. The validity of the second CA, in turn, can be validated by another CA that is "nearer to the top". The 'verification depth' specifies for how many steps Apache should trace the verification chain before rejecting a certificate. The default is one. This only trusts the CA that signed your certificate. Normally, this should not be changed.

Basic Cyrus IMAPD SSL Configuration

Activate SSL for IMAP and POP3. Every time you activate or deactivate SSL for POP3 and IMAP, the server must be restarted. This causes connection loss for all clients currently connected to the server.

Basic OpenLDAP SSL Configuration

The LDAP server must also be restarted when you change the SSL settings.

6.6.2 Certificate Management

During installation a CA and server certificate have been created. In the certificate management dialog, you can delete your existing server certificate. For this purpose, you need the CA password, which corresponds to your cyrus password. Once the certificate is deleted, you can generate or import a new certificate. Use the existing CA or create a new CA for generating a server certificate.

Note

If you delete your CA or create a new CA, existing client certificates will no longer be valid.

Note

Create your own CA (Certificate Authority) or import a certificate signed by a trust center. The latter is subject to a fee and is not mandatory for the smooth operation of your mail server. Create your own certificate to use your server as CA. Fill in the required fields. You will need the CA password for generating certificates for your clients. The password cannot be changed later.

In the following dialog, generate the server certificate that is signed by the CA. If possible, use a different password. 'Host name of the web server' refers to the name of your server. If the name stored in the server certificate does not correspond to this name, some browsers (like Netscape) will question the certificate each time a secure connection is established to the server. After generating the server certificate, you can generate certificates for individual users. Additionally, you can now activate the SSL function of Apache and Postfix.

6.7 Network Services

6.7.1 Virtual Domains and Multiple Domain Capability

Often a company uses more than one domain, for example, `company.com` might be the primary domain with virtual domains like `company.de` and `my-company.com`. Usually, the only functional purpose of the additional domains is to render the web presence in different languages. The SUSE LINUX Openexchange Server supports an arbitrary number of virtual domains and users. It can also differentiate between users of all domains — mails sent to a user in a virtual domain (for example, `sales@my-company.com`) are redirected to a real user in the primary domain, like `sales@company.com`.

You may use the same local part of an e-mail address (in the example, `sales`) in the primary domain as well as in the virtual domain. The eMail server can differentiate between the two with the domain name. If needed, assign the real addressee the virtual e-mail address as the sending address. This gives domain-specific user management.

Creating and Editing Virtual Domains

Click 'Network Services' → 'virtual domains'. If the SUSE LINUX Openexchange Server is also the name server in your network, the dialog is called 'DNS Configuration' and provides additions options for name service configuration. Create a new domain by entering its name in 'New domain' and confirm by clicking 'Add'. The new domain is shown in the list. Use the switch 'Change Domaintype' to either set it up in sendmail style or postfix style. For more information on on the different types read Section 6.7.1 on the facing page. Before the domain name either the character `P` or `S` specifies the domain type. See Figure 6.11 on the next page. This way, add the desired domains.

If you do not have a name server in your network that handles these domains, the SUSE LINUX Openexchange Server can do so. A configuration for the name service (BIND9) is created by default during the install process. Creating or

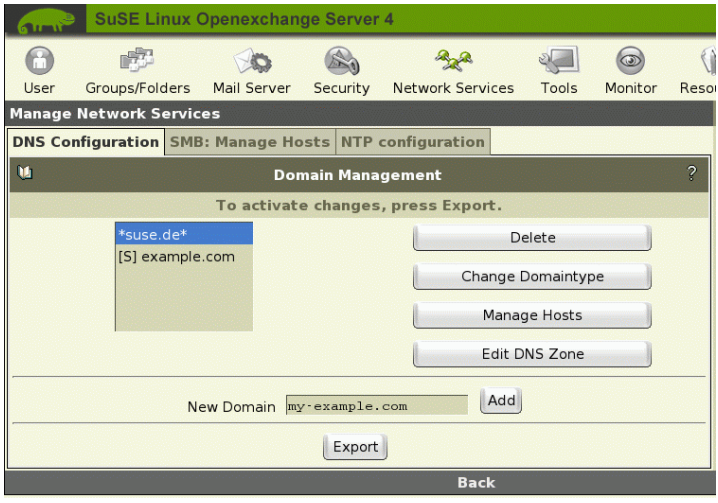

Figure 6.11: *Creating and Editing Virtual Domains*

deleting a virtual domain has no direct impact on the name server configuration. To add an existing domain to the name server's configuration, click 'Export'.

Note

The zone files for the Domain Name Service in `/var/named` will be overwritten for all domains handled by the SUSE LINUX Openexchange Server. To add special options or your own domain files, save the additional configuration files in the directory `/etc/named.d/` and add the additional "include statements" to `/etc/named.conf`.

Note

To add your own zone data to the automatically generated files, simply give them names differing from those generated by the SUSE LINUX Openexchange Server. The zone files are named according to the following scheme. For the "forward mapping", the file name should follow the pattern `/var/named/company.com.zone`. For "reverse mapping", the "IN-ADDR.ARPA" address is added to the file name.

Sendmail Style versus Postfix Style

Two types of virtual domains are supported. The characteristics of these domains depend on how these are mapped by LDAP queries and implemented on

"virtual tables" of postfix. Check the file `/etc/postfix/virtual` for details.

Type S(default) All local users can receive e-mail under this domain. Moreover, additional "virtual" addresses can be configured for specific local users. This virtual domain type was already used by SuSE Linux Openexchange Server 4. In the above-mentioned postfix documentation, it is referred to as `SENDMAIL-STYLE VIRTUAL DOMAIN`.

Type P In this virtual domain type, no e-mail address exists unless you configure a virtual address. Local users cannot receive mail under this domain. If a message is sent to a nonexistent address within this domain, the MTA (postfix) rejects it as nonexistent. In the above-mentioned Postfix documentation, this type is referred to as `POSTFIX-STYLE VIRTUAL DOMAIN`.

Default User for Undeliverable Mail

Especially if you use *Type P* virtual domains, you may want to prevent mail addressed to misspelled e-mail addresses or nonexistent addresses from being rejected and redirect it to a collective account. This can be achieved by creating a catchall address for the respective domain. This address merely consists of the domain name and the `'@'` symbol, such as `@company.com`.

Select 'User' → 'Create Virtual Users' to create such a user. First, however, in the `[GENERAL]` section of the file `/etc/imap/globals.conf` on your server change the parameter AllowVirtualDomainCatchAll from `false` to `true`. Conveniently switch the setting of the parameter in the dialog 'Tools' → 'Global Configuration'. Restart Apache in the 'Monitor' → 'Service Monitoring' dialog. Now, you can leave the field preceding the `'@'` symbol in the 'Create Virtual Users' dialog empty and specify a user who will receive undeliverable mail.

6.7.2 Name Server Configuration

With 'Manging Hosts', the SUSE LINUX Openexchange Server can be used as the name server for the local network. This is advisable if you do not use another name service. Click on 'Add Hosts' to add a new client and enter its host name and IP number and confirm the settings by clicking 'Create'.

Note

The new entry will not be immediately added to the configuration files. To create the new configuration files, choose 'Virtual domains' → 'Export'.

Note

To remove a client from the local network, select 'Delete Host'. Even if only the IP address of a client changes, you must first remove it then add it again. The changes only become effective if you confirm with 'virtual domains' → 'Export'.

6.7.3 NTP Configuration

Synchronize the time settings of all the hosts in your network through a time server to avoid irritating differences. The SUSE LINUX Openexchange Server will fetch the current time from a public time server on the Internet and distribute it to all hosts in the local network.

In the NTP dialog, there is, by default, already an entry for the hardware clock. If you click 'options', the fudge line is displayed with the local host IP address and the `stratum` value set to `10`. `stratum` indicates the reliability of a time source, which is very small for a hardware clock.

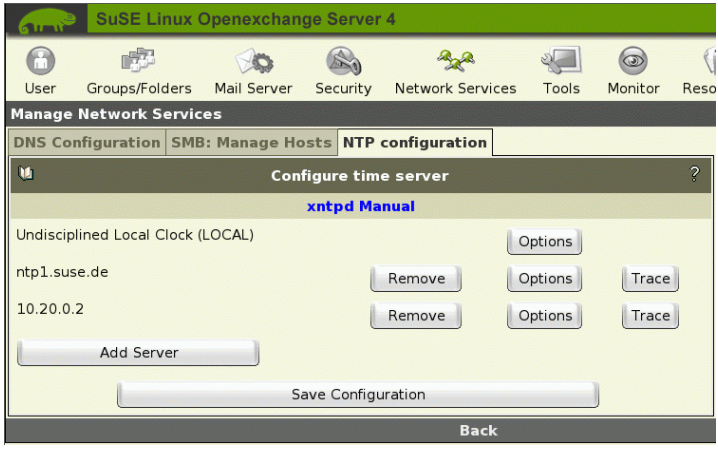

Figure 6.12: *Time Server Configuration*

Click 'Add Server' and enter the desired time server with name or IP address. All public time servers are displayed when you click 'List of public time servers'. Use the same syntax as on the web page, where you can also find further information about NTP.

After entering a server, click 'Add Server'. The time server will now be displayed together with the hardware clock as in Figure 6.12. 'Options' takes you to the dialog in which to enter additional server options or a fudge line. Click 'Accept Options' to activate your settings. To test the time server configuration, click 'Trace'. To remove a time server, click 'Delete'.

Detailed information about NTP is provided on the web page of the NTP Project:
`http://www.ntp.org/documentation.html`.
Read the official NTP Documentation at
`http://www.eecis.udel.edu/~mills/ntp/html/index.html`.

6.7.4 DHCP Configuration

The dialog for the DHCP configuration can be accessed under 'Network Services'. You can create and remove subnets, groups, and hosts and edit DHCP entries.

Configuration of the DHCP Server

Figure 6.13: *DHCP Configuration*

To add a new entry (subnet, group, or host) to the configuration, click the respective button in the upper part of the window (see Figure 6.13) and enter the required date in the following dialog. Existing subnets, groups, hosts, and IP pools are listed underneath. Select an action for the respective entry from the selection box and click the 'Action' button. No entries can be added to pools and hosts. They can only be deleted.

Caution

When you delete an entry, all subentries will also be deleted.

Caution

To edit or add the DHCP options or statements in an entry, click 'Edit'. The following DHCP entries can be created:

DHCP Subnet The is the basic entry for the DHCP server. This entry specifies for which subnets with which IP address mask the DHCP server is responsible. All additional DHCP objects can be added in a subnet.

Group Hosts (host names) handled by the DHCP server with the same DHCP parameters (options, statements) are combined in a group. Only host objects can be added to a group. However, a group can be part of the global configuration and of a subnet.

IP Pool A address pool defines an IP address space that is treated differently than the other IP addresses. When a DHCP pool is created, the IP addresses in the IP pool are registered with the name server and host names are generated for these IP addresses.

Host To add a host to the DHCP configuration, it first must be entered in the DNS configuration. A host can be added to the basic configuration, to a DHCP subnet, or to a group.

Note

At least one subnetwork must be defined to be able to start the DHCP server.

Note

Changes to the DHCP configuration are saved by the LDAP server. Click 'Export' to generate and reload the configuration of the DHCP server.

Adding a Group to the DHCP Configuration

In this dialog, you can add a new DHCP group. Hosts (host names) handled by the DHCP server with the same DHCP parameters (options, statements) are combined in a group. Only host objects can be added to a group. However, a group can be part of the global configuration and of a subnet. If you create a group a global group, the hosts of this group can get their IP addresses from various subnets. In this case, all subnets must be configured. If you create a group in a DHCP subnet, make sure that the hosts of this group get their IP addresses from this subnet.

The group designation can be selected freely. Click 'Confirm' to add the new group to the DHCP configuration. If necessary, the automatically generated DHCP options and statements for the newly created group can be modified under 'Expert Options'.

Adding a Host to the DHCP Configuration

Click 'Add Workstation' to enter the dialog. Select a domain and click 'Next'. Select a host from the list, enter the hardware address of the network card (MAC), and click 'Confirm'. If the host is not listed, it must be created in a DNS domain with 'Create Host' in the 'DNS Configuration' dialog.

If the selected domain does not contain any hosts that are included in the DHCP configuration, you will automatically be taken to the 'DNS Configuration' dialog.

Once the host has been added, DHCP options and statements can be defined for the newly added host. To do this, click 'Expert Options'.

Note

A host that is added to the DHCP configuration cannot be removed from the name server. It is not listed under 'DNS Configuration' → 'Delete Host', as the unintentional deletion of this entry can impair the functionality of the DHCP server. To remove a host entered in the DHCP configuration from the name server, delete the DHCP host entry first.

Note

Adding a Subnet to the DHCP Configuration

Click 'Add Subnet'. Define the network address in the dialog and the netmask of the subnet in 'Netmask'. The netmask can be entered in bitmask form (e.g., `24`) or in decimal form (`255.255.255.0`).

This entry specifies for which subnets with which IP address mask the DHCP server is responsible. All additional DHCP objects can be added in a subnet.

Click 'Confirm' to enter the new subnet in the DHCP configuration. If necessary, the DHCP options and statements for the newly created subnet can be modified under 'Expert Options'.

Options and Statements of a DHCP Entry

Modify the options and statements of a DHCP entry in 'Expert Options'. The dialog displays the current values of the entry. Some parameters (such as object classes, `cn`) are only readable. To change the value of an option or statement, edit the respective text field and click 'Save Changes'.

To delete an option or statement, click the 'Delete' checkbox to the right of the value then click 'Save Changes'. To include a new option or statement in the DHCP entry, enter it in 'New' and click 'Save Changes'.

Note

Do not enter the word `option` for DHCP options.

Note

Click the question mark next to 'New' to open a window with a list of DHCP options and statements. Select the desired item and click 'Choose a DHCP parameter'. Then click 'Close'. The entry will be adopted in 'New' and can be expanded if necessary.

To restore the previous values, click 'Reset Selection'. Click 'Export' to generate and reload the configuration of the DHCP server.

Note

Incorrect entries in the configuration can lead to a malfunctioning DHCP server. Syntax errors can prevent the DHCP server from being restarted.

Note

6.8 Tools: Additional Utilities

6.8.1 LDAP Browser: Edit the LDAP database

SUSE LINUX Openexchange Server uses the LDAP directory service for its internal group and user management (also for Samba), address management, mail routing, DNS, and DHCP. In addition to the configuration dialogs of these services, the LDAP browser can be used for editing, deleting, and adding attribute values to existing entries. See Figure 6.15 on page 61.

Caution

Do not change any settings unless you are sure about what you are doing, as incorrect settings can render the server inoperable.

Caution

LDAP directories have a tree-like structure. All entries (called objects) in the directory have a defined position in this hierarchy. This hierarchy is referred to as the *Directory Information Tree* or DIT. The complete path identifying a specific entry is referred to as the *Distinguished Name*. The individual nodes on the way to this entry are called *Relative Distinguished Names* or RDN. Basically, there are two types of objects:

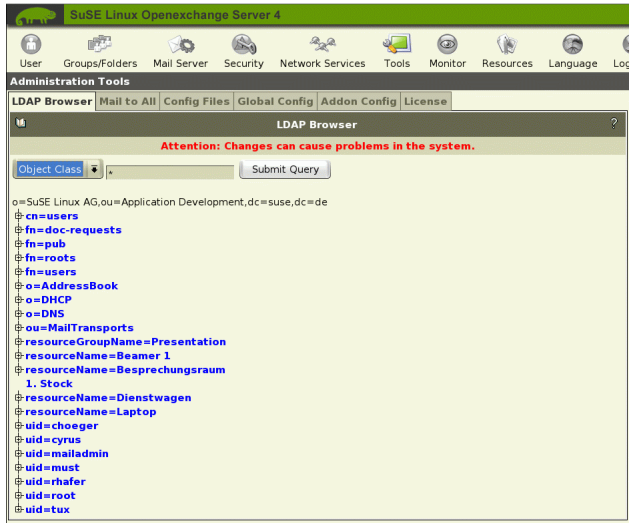

Figure 6.14: *Tree Structure of the LDAP Browser*

Containers These objects can contain other objects. Object classes are `root` (virtual root element of the directory tree), `c` (country), `ou` (organizationalUnit), and `dc` (domainComponent). This model can be compared to directories (folders) in the file system.

Forms These objects are located at the tip of a branch. They do not have any subordinate objects. Examples: `person`, `InetOrgPerson`, `groupOfNames`.

The directory structure originates from a `root` element. Object classes, such as `c` (country), `dc` (domainComponent), or `o` (organization), follow in the next level.

The global definition of the object types stored in DIT is realized by means of a *schema*. The object type is defined by the *object class*. The object class determines which attributes *must* or *can* be assigned to the respective object. Accordingly, a schema must contain definitions of all object classes and attributes used in the respective deployment scenarios. Apart from a number of general schemas (see RFC 2252 and 2256), user-defined schemas can be created or several schemas can be used to complement each other, if this is necessary for the environment in which the LDAP server operates.

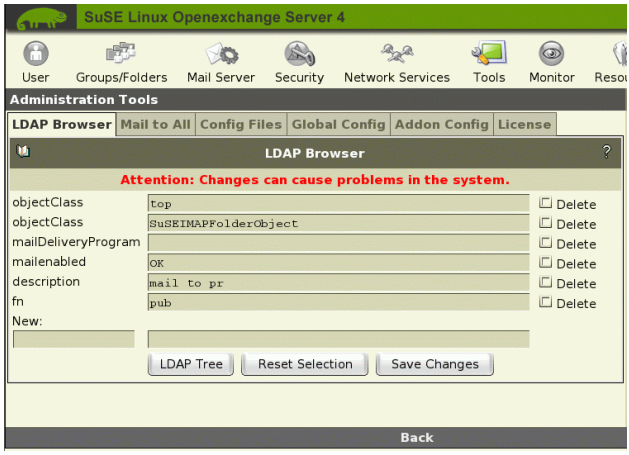

Figure 6.15: *Editing LDAP Settings*

6.8.2 Mail to All: Messages from the Administrator

It might be useful for the mail administrator (`mailadmin`) to write a message to every user of the system, for example, if the SUSE LINUX Openexchange Server goes offline for maintenance. Enter the subject and message text as in Figure 6.16 on the next page. The mail will be delivered to all users regardless of their quotas.

6.8.3 Edit Configuration Files

Here, edit some important configuration files in the directory `/etc` or in one of its subdirectories. Most services must be restarted or reloaded to incorporate changes. If you click a file name, it is opened in the editor of the web front-end. Make your changes and click 'Save'. Use 'Reset' to discard your changes. 'Back' returns to the overview of all configuration files.

6.8.4 Global Configuration

Use this to make settings that affect the web-based configuration and some components of the system. The corresponding configuration file can be found on the server in the file `/etc/imap/globals.conf`.

GENERAL

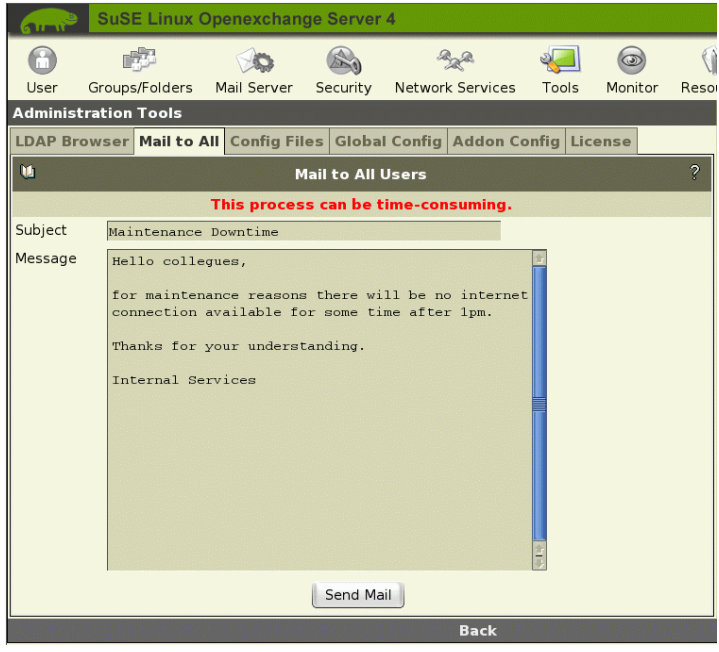

Figure 6.16: *A Mail from the Administrator*

EnableSamba Activate or deactivate the PDC functionality.

EnableUserSpamFrontend Enable or disable the SPAM filter front-end in the filter settings of each user.

EnableSieveEditor Activate or deactivate the SIEVE filter editor in the user's filter settings.

MonitorResolveAddr Set whether IP addresses should be resolved in the online monitor.

EnableFaxParamFrontend Activate the fax configuration dialog after installing the fax hardware and software.

DelUserNoAcl If a user is deleted, all IMAP folders are examined to check whether the user had access to them. This is done to prevent inconsistencies. The down side is that this action can take a considerable amount of time. For deleting many users at the same time, it is advisable to set this option to true.

NewUserChangePassword If you activate this function, the user will

be prompted to change the password assigned by the administrator after the first login.

DisableDNSManagement Disables DNS management.

DisableDHCPManagement Disables DHCP management.

DisableWebmailLink Disables Webmail link in the setup area.

DisableGroupwareLink Set this option to `true`, if the 'Groupware' tab should not be displayed.

DisableGroupwareLogin If set to `true`, users will be directed to the configuration dialog, not the groupware, after login.

UserJpegPhotoMaxHeight Specifies the maximum height of user photographs. The proportions are retained if the photograph is scaled.

UserJpegPhotoMaxWidth Specifies the maximum width of user photographs. The proportions are retained if the photograph is scaled.

EnableFilter Enables filter selection fields for user names, etc.

EnableFolderPermissionMail If the administrator grants a user access permissions to a shared IMAP folder, the user will be informed by mail.

AllowVirtualDomainCatchAll Allow "CatchAll" addresses in virtual domains for undeliverable mail.

MonitorServices Enter the services to monitor in the web interface.

GroupwareHostname In a distributed setup enter the host name of the Groupware server.

CookieDomain In a distributed setup, allow different servers access to the users' browser cookies. Instead of `hostname.example.com` use `.example.com` as cookie domain.

WALLMailtoAttribute Change the LDAP attribute `uid` for the "mail-to-all" functionality, here.

AdministrativeHostname In a distributed setup, specify the SUSE LINUX Openexchange Server host name here.

MessagingHostname In a distributed setup, specify the server for DyCE Instant Messenger.

SESSIOND

SessionTimeout Specify a time-out after which a user is automatically logged out.

SessiondHost

SessiondPort

SSL_key_file

SSL_cert_file

SSL_ca_file

The options 'SessiondHost', 'SessiondPort', 'SSL_key_file', 'SSL_cert_file', and 'SSL_ca_file' are by default not in use. They are necessary in case the administrative web front-end is installed and used on a different computer.

SUAD

Do not change the options for `suad`.

SECURITY

UseCookie The options 'UseCookie' and 'CheckClientIP' prevent someone from "stealing" a session by somehow obtaining the session ID of a user. 'UseCookie' is the safest. An additional ID is saved in the browser of the user.

CheckClientIP CheckClientIP prevents a session from being stolen by checking whether all accesses to the web front-end originate from the same computer. Because an IP address can be faked or a user might access the front-end from behind a proxy cluster that uses varying IP addresses, this option is less useful than that using cookies.

DefaultPasswordHash Specify the default method of encrypting users' passwords.

FETCHD

debug If you set this option to a value greater than 0 and restart the "fetchd" by entering `rcfetchd restart`, you will receive debug information.

keeponserver If you activate this option, mails fetched from the server are not deleted from the server. Usually, deactivate this option as ALL mails must be fetched when mail is fetched from the server.

unixsocket This socket is used for the communication between the web client and fetchd.

ldaphost Specify the computer name or IP address of the LDAP server fetchd uses to save data about the user's mail boxes.

ldap_reconnect_interval fetchd uses a permanent connection to the LDAP server. If this connection is closed or becomes invalid, it will be reestablished after this interval, set in seconds.

ldap_max_reconnect Enter the maximum number of times fetchd should retry establishing a broken connection to the LDAP server.

mailadmin The name of the local mail box in which administrative messages should be saved.

append_fetch_header Set whether a header be attached to every mail fetched by fetchd.

drop_undeliverable_mail Undeliverable mail will be dropped immediately.

thread_max fetchd contains a rudimentary scheduler, which starts, at most, as many processes as specified here. Do not specify too high a value for this option, because a process might use a lot of memory.

priority_granularity This value should be at least twice as high as the value of 'thread_max'.

6.8.5 Addon Config

The 'Addon Config' dialog allows configuration of the groupware, ferrariFAX, and DyCE Instant Messenger. Settings for ferrariFAX and the DyCE Instant Manager are described in their respective manuals.

Click 'Groupware Settings' to configure groupware-specific functions. Import a holiday list, delete groupware data. or rebuild lost groupware data.

Import Holidays

Click 'Import Holidays' and enter the file name or click 'Browse' to select the holiday file to prepare for import. Click 'Insert Holidays' to provide the list to the groupware users. All users may now include this list in their personal profile. This way, different holiday lists can be provided for different countries and states. Groupware users can also generate their own personal holiday list in the personal profile management.

Delete Groupware Data

In this dialog, obsolete or damaged data inserted into the groupware database may be deleted by the administrator. First, enter the user name or search criteria in the filter field and click 'Apply Filter'. Then select the user and click 'Data Overview'. All data belonging to the user is displayed. Limit the list with the

time span option and click 'Display'. All contacts, jobs, addresses, and appointments generated during the specified time frame will be displayed.

Select the entry to delete by clicking the blue link. Then, click the yellow arrow to see the details of this entry. If it really is the one to remove, click 'Delete'. You will not be asked for confirmation before the entry is deleted.

Rebuild Groupware Data

Data deleted in the groupware database may be restored in this dialog. Select the user who owned the deleted data by entering his name or search criteria in the filter field and clicking 'Apply Filter'. Select the user and click 'Data Overview'. All deleted data of this user will be displayed. Set the time span to a reasonable period and click 'Display'. All contacts, jobs, addresses, and appointments deleted by the selected user in the specified period of time are listed. Click the blue link to get an overview with time stamp. Select the entry to restore by clicking the yellow arrow next to it. You will see the details of the entry and, if you are sure it is the correct one, click 'Rebuild'.

6.8.6 License

In the license dialog, conveniently activate Groupware, FerrariFax, or DyCE Instant Messenger. Enter the respective license keys in the appropriate input fields and click 'Commit'. For each product, there are directions in this dialog about how to start the necessary services. For detailed information, read the included manuals for these products.

6.8.7 Fax and Unified Messaging

In 'Tools' → 'Global Configuration', set the switch EnableFaxParamFrontend to `true` to activate the web front-ends for the fax and SMS functions. Following the activation, the submenu item 'Fax/SMS-Parameter' will appear under 'User' → 'Edit'. Now select a user from the list and assign him a fax number or an SMS number.

Be careful with the assignment of permissions for the attributes. In most cases, the user should not be able to change his fax number. By default, the user does not have write permissions for 'Fax Extension', 'SMS Extenstion', and 'UserID for Network Printers'. In the user administration menu, this setting can be changed for individual users with 'Access Rights'. To change the default setting for newly created users, select 'User' → 'Default Access Rights'.

The software does not need to be configured. This is done automatically during the installation or update. To activate the system, select 'Monitor' → 'Service

Monitoring'. Switch the view to 'Fax Services' and click 'Set View'. In the next dialog, see a list of the components needed for fax operation. Click 'Activate All' and 'Start All' to start the fax system permanently. If you do not want the system to be started automatically the next time the system is booted, only click 'Start All'.

If a service is not started after you click 'Start All', try to start it separately by setting its status to `running` and clicking 'Set Status'.

6.9 Monitoring the System

6.9.1 Online Users

With 'Online Users', see an overview of which users are currently online using the web front-end. These are only the SUSE LINUX Openexchange Server internal sessions. POP and IMAP connections are not listed. Clicking a user ID deletes this user's session. You cannot delete your own session.

6.9.2 Mail Queue

In this form, see a list of all mails Postfix is currently processing. Enter the refresh rate in seconds (e. g., 5 seconds) and press (Enter). The form will be repeatedly updated at that interval. To turn off the automatic updating, select 'Mail Queue' again. Usually, no mails are listed here. If the Postfix system was stopped or is for some other reason unable to deliver mails, mails awaiting delivery are listed. Use 'empty queue' to provoke Postfix to process the mails immediately. To delete a mail from the list, click the Queue ID of the respective mail. The mail is irretrievably lost when deleted.

6.9.3 Mail Statistics

Click 'Mail Statistics' to view a chart of the mail processed during any period between the past 24 hours and last year. The error statistics and data volume are displayed in other charts.

6.9.4 System Statistics

This item provides an overview of your server load. Select an overview category and the period then click 'View'. Figure 6.17 on the following page shows the CPU load and system load for the past hour.

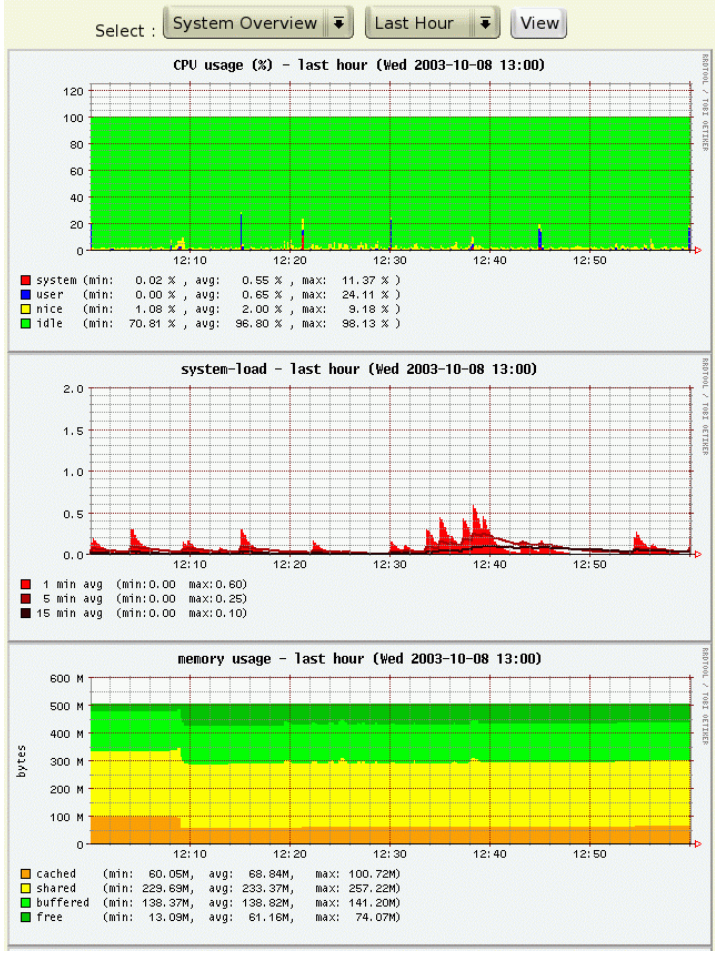

Figure 6.17: *System Statistics*

Note

Following a hardware modification, such as the repartitioning of a hard disk, you must reinitialize the system monitor. To do this, enter the following commands:

```
/usr/lib/sysMonitor/clearall CLEAR_GRAPHS
/usr/lib/sysMonitor/clearall CLEAR_DATABASES
/usr/lib/sysMonitor/SETUP.pl
/usr/lib/sysMonitor/rrdtimer gv
```

Note

6.9.5 Service Monitoring

This menu item provides an overview of important system services and their current statuses. See Figure 6.18 on the next page. All services currently listed after the parameter `MonitorServices` in `/etc/imap/globals.conf` will be displayed.

A system can be active or inactive. Active services are started automatically when the system is booted. Furthermore, you can start, stop, reload, and restart services. When you restart a service, it is stopped then started again. When you reload a system, it is not stopped, but its configuration will usually be reloaded and some features initialized. This function is not supported by all services. Click 'Set Status' after you have changed the status of a service.

Figure 6.18: *Service Status*

6.10 Resource Management for the Calendar

You may define resources that can be managed using the appointment manager of the groupware. Resources can include rooms, company cars, or hardware.

6.10.1 Creating and Deleting Resources

First, choose 'Resources'. Using 'new', define new resources as shown in Figure 6.19. Entries are saved if you click 'Confirm'. New resources appear in the overview and can be deleted by clicking the trash bin icon next to them.

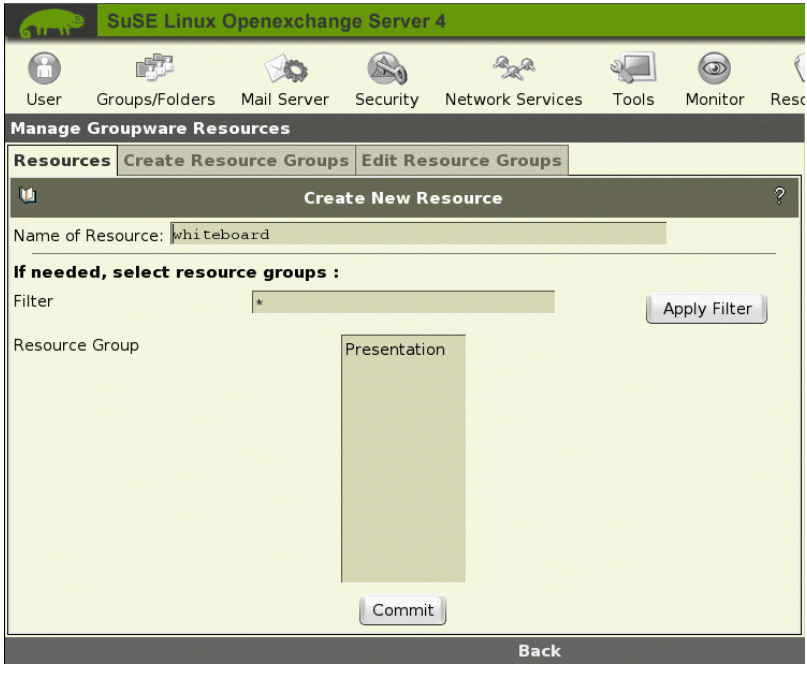

Figure 6.19: *Creating and Deleting Resources*

6.10.2 Creating Resource Groups

Gather resources into useful groups, which makes the administration and selection in SKYRiXgreen easier. To do so, first enter the resource group's name. Existing resources can now be selected and added to the new group. When finished, click 'Confirm'. See Figure 6.20.

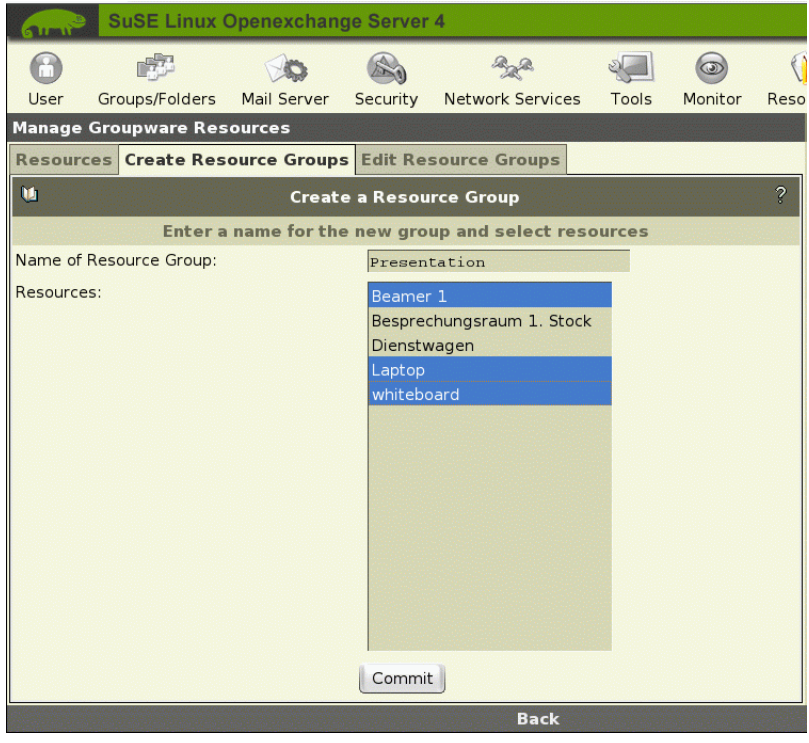

Figure 6.20: *Creating and Deleting Resource Groups*

6.10.3 Editing and Deleting Resource Groups

Modify resource groups by choosing 'Edit resource group'. Remove and add resources by selecting or deselecting entries. Save the changes by clicking 'Confirm'.

6.11 SUSE LINUX Openexchange Server as a Windows Server

If you chose to set up a Samba server during the installation, some additional menu entries are available. If desired, insert users into your windows network or remove them. If a user is given a Samba account, his home directory is created in `/home`.

6.11.1 Activating the Windows Server

To activate the Windows server functionality after installation, first execute a script. Log in to your server, for example, using ssh, as user `root`. Switch to the directory `/usr/share/doc/packages/imapweb32/tools` and run the script smbactivate.sh by entering `./smbactivate.sh` and following the directions. Next, log in to the web front-end as `cyrus` and select 'Tools' → 'global configuration'. Change 'EnableSamba' to true then click 'Save'. The additional menus should now be available.

6.11.2 Authenticating Windows Clients

To use the SUSE LINUX Openexchange Server as PDC (Primary Domain Controller) for your Windows clients, the corresponding machines must log in to the system. To make this possible, a machine account must be created for each workstation. The following shortly describes the procedure for the different Windows versions.

Windows 2000

Right-click 'My Computer' on your desktop and choose 'Settings'. Activate 'Network identification' and click 'Settings'.

In the new window, activate 'Member of' → 'Domain' and enter the name of your Windows domain in the text field.

Click 'OK'. Enter the user name `root` and the administrator password (for `cyrus`). After restarting, you should be able to log in as an SUSE LINUX Openexchange Server user.

Windows XP

First, you must make some changes in the registry. Copy the file `/usr/share/doc/packages/imapweb32/tools/XP-Registry-Changes.reg` to your Windows client and execute it by double-clicking it. Alternatively, start the program regedt32 by entering its name in the 'Run' dialog in the 'Start' menu. Next, set the value `[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Netlogon\Parameters\requiresignorseal]` to `dword:00000000`.

Before continuing, ensure that there is no open connection between your Windows XP client and the SUSE LINUX Openexchange Server. Then open the 'Start' menu, right-click 'My Computer', and choose 'Settings'.

In the following window, activate 'computer name' and choose 'Change'.

In the new window, activate 'Member of' → 'Domain' and enter the name of your Windows domain in the text field.

Click 'OK'. Enter the user name `root` and the password for the administrator `cyrus`. After restarting, you should be able to log in as a SUSE LINUX Openexchange Server user.

Administration as a User

As a user, you can access the configuration panel for personal options using the 'Setup' link in the Groupware's menu. The following sections contain explanations for particular menu options. Configuration options include personal data, folders, filters, and a vacation notice.

7.1 Settings

This menu offers options for changing your personal data, such as address and phone number, and your password. It also has an option for downloading a personal certificate.

7.1.1 Entering and Changing Personal Data

Depending on your write access, you can change the personal data stored in the system's address book, as shown in Figure 7.1. If you do not have write access to some fields, they cannot be modified.

Select if you want to be directed to the 'Groupware' or the 'Configuration' area after logging in. Set the number of days a job or appointment is shown in advance using 'Display Tasks on the starting page of the groupware' and 'Display appointments on the starting page of the groupware'. Save your changes with 'Update'.

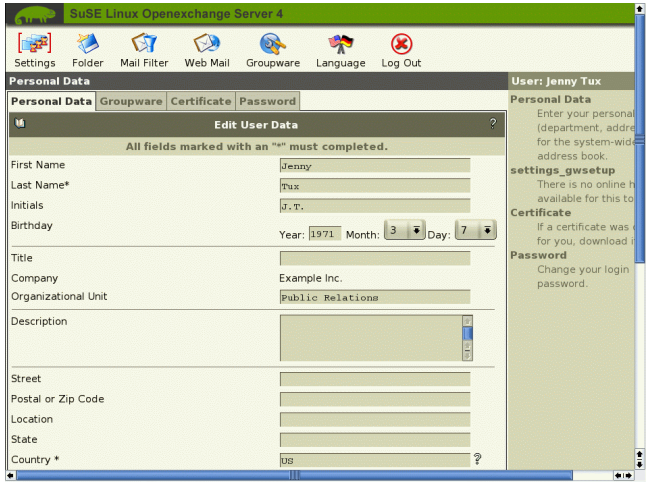

Figure 7.1: *The User's Personal Data*

7.1.2 Groupware

The 'Groupware' dialog offers special functionalities for the groupware. Import holiday lists provided by the administrator or create your own. Configure no-

tification when new e-mail arrives and place the groupware handbook to the preferred side of your browser window.

Import Holidays

If the administrator has created a holiday list for company-wide use, import it by clicking 'Import Holidays'. All available lists are displayed and can be selected. Click 'import' to download them for use in the groupware.

Create Holiday List

To create your own holiday list with personal dates, click 'Create Holiday List'. Enter a description and the date of your personal holiday. Click 'Save' for the new holiday to be displayed among the existing holidays. To delete a holiday, click 'Delete' next to the corresponding entry.

E-Mail Notification

In this dialog, configure whether and how to be notified of new e-mail. Choose from a pop-up window, a blinking e-mail icon, or a sound signal. Click 'Save' to activate your settings.

View

Align the groupware handbook to the left or right frame of the groupware. The default is `right`.

7.1.3 Downloading a Certificate

If your administrator has created a certificate for you, download it under 'Certificate' and import it into your browser. Information about importing a certificate into your browser can be found in your browser's documentation.

7.1.4 Changing the Password

Change your password occasionally for security reasons. To do so, first enter your old password then your new password twice in the designated fields. See Figure 7.2 on the next page. Also choose how to save the new password. The following options are available:

CRYPT: When using the CRYPT mechanism, the maximum length of the password is set to eight characters. This is the standard mechanism for most Unix systems.

SHA/SSHA/SMD5: Using these mechanisms allows significantly longer passwords than the CRYPT algorithm. Up to 255 characters are allowed. The "encryption" applied here is considered superior to the mechanism applied by the "CRYPT" method by security experts.

By default, the mechanism used to save the old password is applied.

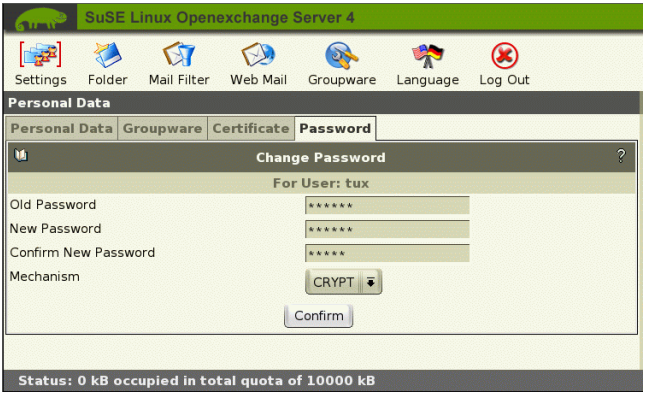

Figure 7.2: *Changing Your Password*

If you forget your password, contact your administrator. The administrator can create a new password for you without knowing your old one.

7.2 Managing Folders

The SUSE LINUX Openexchange Server places your mails in folders. Create, rename, and delete folders and administer other users' access permissions to your folders in the 'Folder' menu. This is one of the advantages of the IMAP protocol. This is not possible when using POP.

SUSE LINUX Openexchange Server has hierarchically structured folders. The top folder is the `INBOX`. All other folders are created in it. The following folders are created for every user by default:

`INBOX` If no mail filters are defined, all incoming mails are stored here.

`INBOX/drafts` Here, store unsent drafts of e-mails.

`INBOX/sent-mail` All e-mails sent are stored here.

INBOX/spam This folder is used when you activate the filter for unsolicited commercial e-mail, commonly called SPAM. You can have the system store all e-mails recognized as SPAM here. For details about the SPAM filter, see Sections 7.3.2 on page 82 and 6.5.1 on page 45.

INBOX/trash By default, the web mail program saves copies of deleted mails in this folder.

These folders are needed by the system and should not be deleted. Deleting the entire INBOX is impossible.

7.2.1 Creating a New Folder

Create new folders in the submenu 'New'. On the left, all available folders are shown. To add a new folder, click its parent folder. Enter the name of the new folder. See Figure 7.3.

Figure 7.3: Creating a New Folder

By clicking 'New', a new folder is created. The name of the new folder is, for example, INBOX/subfolder. You can create a new folder in it, for example, another_folder. This folder's name is then INBOX/subfolder/another_folder.

Note

The slash `'/'` in the folder's name has an important meaning. It is used as a hierarchy separator. For example, creating a folder `marketing/purchasing` is comparable to creating a directory `marketing` containing a file `purchasing`. If you now create another folder `marketing/sales`, you have a directory containing two files. If you did not create the folder `marketing`, no mail can be stored there.

Note

7.2.2 Editing Folders

Rename and delete existing folders and change the access permissions of other users to these folders in the 'Edit' submenu. To delete a folder, select it from the list to the left and click 'Delete'.

Caution

When deleting a folder, all mail it contains is lost. All its subfolders and their contents are also removed.

Caution

To change the name of an existing folder, select it from the list. Then enter the new name in the corresponding field and click 'Rename'.

You can assign rights for user folders. Clicking 'set permissions' opens a form identical to that used for shared folders. A complete description of assigning permissions can be found in Section **??** on page ??. As owner of the folder, you have all permissions for that folder. You should not change this. When creating subfolders, remember that subfolders inherit the permissions of the parent folder.

7.2.3 Subscribing Folders

Under 'Subscribe', select shared folders to which to subscribe. There are two lists — the first one shows the available folders and the second one shows the folders to which you are subscribed. Use the blue arrows to move folders from one list to the other. Confirm your selections with 'Save'.

7.3 The Mail Filter

By using the SIEVE-based mail filter system of the SUSE LINUX Openexchange Server, automatically process incoming mails. A detailed description of SIEVE can be found in RFC 3028, available at `http://www.ietf.org/rfc/rfc3028.txt`.

7.3.1 Mail Filter

With mail filters, control processing of incoming mails. Select mails based on custom criteria then file them into specific folders. Mails can also be automatically refused or forwarded to other e-mail addresses.

Selecting 'Mail Filter' opens an overview of current filters. This is initially empty.

Creating Filter Rules

To create a new rule for a filter, click 'Enter filter rule'. Creating a new rule for a filter is divided into a few steps. The first step is to define all filter conditions. The following properties of an e-mail can be evaluated:

Size: Check whether the size of a mail is larger or smaller than a certain value.

Header field: The content of the header is checked.

Envelope fields: The envelope fields containing, for example, the sender, recipient, and topic of an e-mail are checked.

The second step is defining an action that is executed if the filter conditions match. If more than one condition is entered, choose how the conditions are linked. `AND` means that all filter conditions must apply for the action to take place. `OR` means that only one condition must apply.

The following example demonstrates configuration of the mail filter. A friend sends you e-mail regularly, but you do not want to receive all of these mails. You want to sort out those larger than one megabyte sent by `friend@domain.com`. Those e-mails should be refused and the sender informed.

Select 'insert filter rule'. Click 'Size limit'. Insert the desired value (see fig. 7.4 on the following page). For our example, this is 'larger than 1 Megabyte'. Confirm with 'OK'. Afterwards, select 'Filter of header fields'. Insert 'From contains friend@domain.com' and confirm with 'OK'. This defines the conditions for this example.

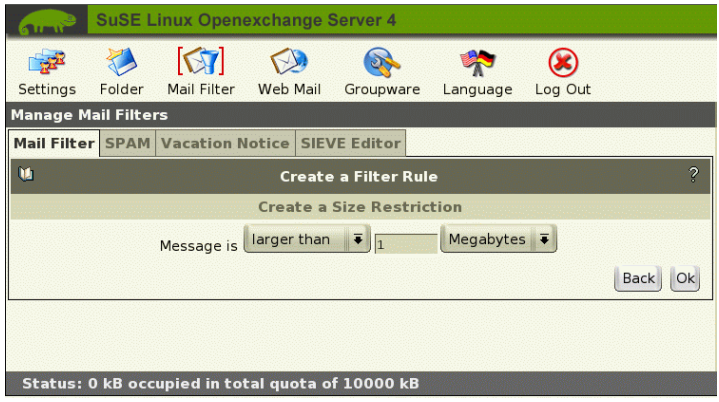

Figure 7.4: *Setting Size Limits*

'Next' continues to the dialog for selecting an action. Select 'reject message with the explanation' and enter a meaningful text, such as "Your mail is too big. Please do not send such bulky messages to me." The filter action dialog is shown in Figure 7.5 on the next page. To apply another filter to this mail, if desired, click 'Continue processing this mail'. Save the changes.

If you now reopen 'Mailfilter', see the new rule in form of a sentence. You have the possibility to edit the filter (the icon with the paper and pen), to disable or enable it without changing the data (the red X or green check) or to delete the filter (recycling bin icon). To create another filter, click 'Insert new filter'. By default, the new filter is created after existing filters. Modify 'in position' to select another location. In some cases, the order of the filters is important.

7.3.2 SPAM: Filter for Unsolicted Commercial E-Mail

If the system is configured for detecting and marking SPAM mail, set up rules for what to do with mails marked as SPAM. The following options are available:

Save to a folder: If this option is activated, enter the folder in which to store SPAM mail.

Delete: Every mail recognized as SPAM is deleted upon arrival. Use this option with caution. Under some conditions, e-mail that is not SPAM may be recognized as such, because it contains several characteristics of SPAM.

Nothing: No special treatment of mails recognized as SPAM.

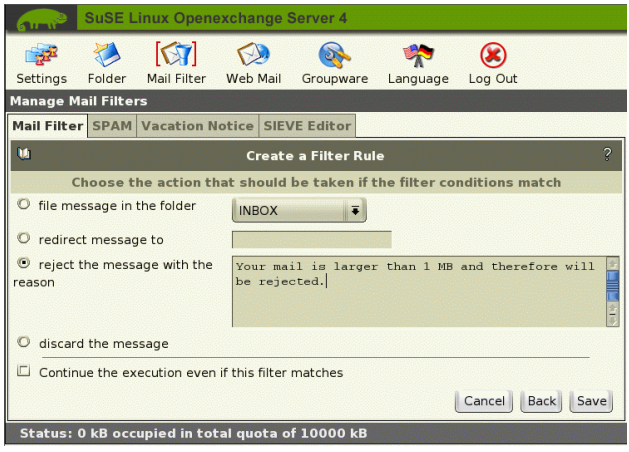

Figure 7.5: *Setting Mail Filter Actions*

7.3.3 Vacation Notice: Automatic Reply During Absence

Using the vacation notice, configure the server to answer incoming mails automatically. Click 'Create' to configure a vacation notice. Enter a subject and text for the automatic reply as shown in Figure 7.6 on the following page.

To import the subject from the received mail, leave the 'Subject' field empty. If someone sends an e-mail while the vacation notice is activated, he will receive your reply. If the sender sends another e-mail within the time frame specified in 'Repetition interval', he will not receive the answer again. If desired, specify an address to which to forward your incoming mails in 'Forward to'. This address may either be internal (e. g., if a colleague takes over your work) or external (e. g., a mail account you can reach from home). If you created a vacation notice, this is shown when selecting the submenu. Activate or deactivate it without changing the settings by clicking the green check or the red X.

7.3.4 SIEVE Editor: Writing Custom Scripts

The SIEVE editor offers the possibility of writing your own scripts for automatic processing of e-mails or inserting existing scripts. Be careful here. An incorrect script can completely block the automatic processing.

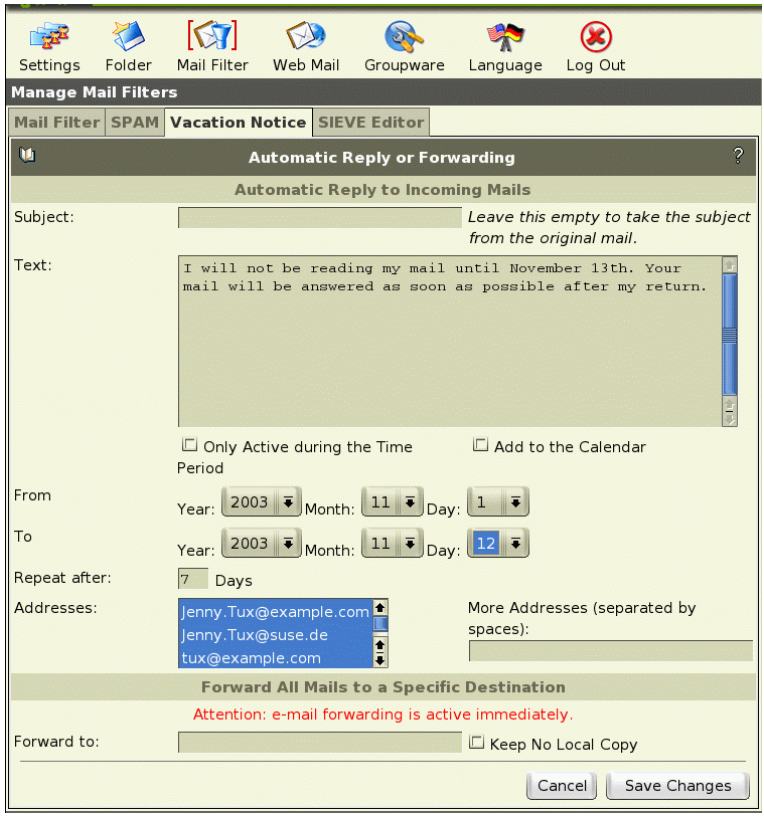

Figure 7.6: *Creating a Vacation Notice*

Note

After defining your own filter rules with the SIEVE editor, it is no longer possible to use 'Mailfilter', 'SPAM', and 'Vacation notice'.

Note

7.4 Webmail

Clicking the webmail icon opens the mail client of the groupware. A detailed description of the software is provided in the SUSE LINUX Openexchange

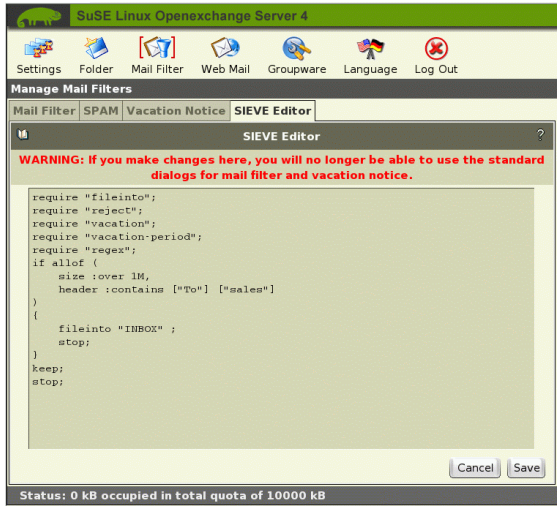

Figure 7.7: *The SIEVE Editor for Writing Custom Scripts*

Server *User Guide*.

7.5 Groupware

Clicking groupware icon leads you to the portal of the groupware, from which you have access to all its functions. Read the SUSE LINUX Openexchange Server *User Guide* for detailed information about the groupware.

7.6 Changing the Language

Use 'Language' to select your preferred language. Simply select the language and click 'Set language' to make it your default.

Configuring External Mail Programs

Your users can interact with the SUSE LINUX Openexchange Server using external mail programs as well as the built-in web-based interface. The mail program must support IMAP or POP3 mail servers, however. For access to the global address book, the program needs to be able to query LDAP directory services. Netscape Communicator in versions 4.7x and 6.x and the mail client in Mozilla are compatible and are available for almost any operating system. For Linux users, the KDE program KMail and the console-based program Pine are good choices. On Microsoft platforms, Outlook 2000 or Outlook Express can be used. Other programs are also available, but only those mentioned are described in this text,

This text describes configuration with IMAP and LDAP, if available. You may also configure clients to use the POP3 protocol, but that does not offer the entire functional range of the SUSE LINUX Openexchange Server. Using POP3, you cannot access shared folders. Also, your personal e-mails are downloaded to your computer. For this reason, the POP3 configuration is not described here.

8.1 Preparations

Beforing setting up your e-mail client, obtain the following information. This information can be obtained from the SUSE LINUX Openexchange Server administrator. For configuring IMAP, the following details are essential:

- login name (UID)
- password
- e-mail address
- complete host name of the SUSE LINUX Openexchange Server

To configure the LDAP address book, you must have:

- entire host name of the SUSE LINUX Openexchange Server
- search base or server root (LDAP base DN)

8.2 Netscape Communicator Version 4.7x

8.2.1 Configuring the IMAP Mail Client

To configure the IMAP mail client of the Netscape Communicator Version 4.7x, select 'Edit' → 'Preferences . . . '. In the configuration dialog that opens, expand the category 'E-Mail & Newsgroups' by clicking the arrow in front of it. Next, select 'Identity' and enter the values for the user into the respective fields. This dialog is shown in Figure 8.1 on the next page.

Select 'Mail server' and enter a new entry for the IMAP server by clicking 'Add . . . '. Enter the full name of your SUSE LINUX Openexchange Server in 'Server name' and select IMAP as the 'Server type'. Enter the login name (UID) of the user in 'user name'. If desired, check 'Remember password' to have Netscape

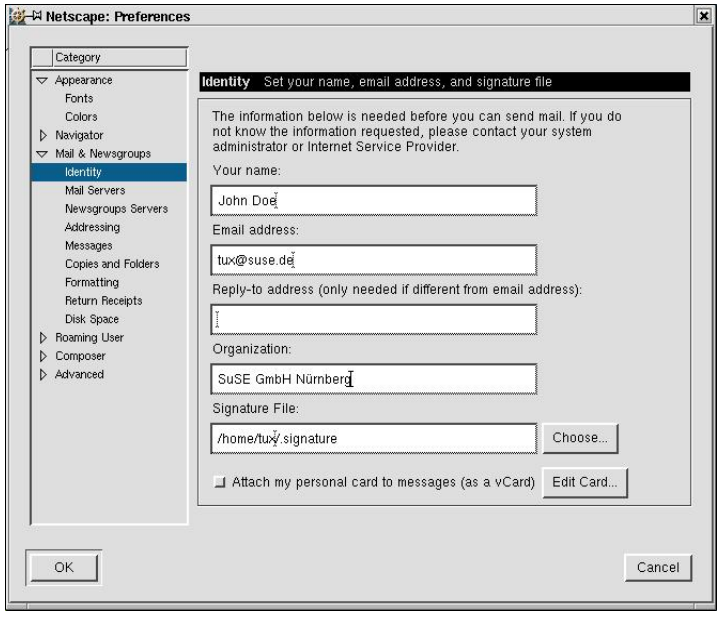

Figure 8.1: *Identity and User Settings*

save the password. Refer to Figure 8.2 on the following page. To finish the configuration, select 'Advanced' and deactivate 'Show only subscribed folders' to see all available folders of the SUSE LINUX Openexchange Server.

Leave this dialog by clicking 'OK'. Enter the full host name of the SUSE LINUX Openexchange Server and your user name (UID) in the corresponding fields in 'Outgoing Server'. See Figure 8.3 on the next page.

Close the configuration dialog by clicking 'OK'. You can now connect to the SUSE LINUX Openexchange Server with Netscape Messenger.

8.2.2 Configuring the LDAP Address Book

For the authentication, Netscape 4.x uses an access to the directory service which is no longer standard-compliant. The client requests anonymous read access at least on the root level. By default, this access is blocked in Openexchange Server. As a general rule, clients can only read with authentication. One possible solution is the use of anonymous read permissions such as in predecessor versions. The access can be limited to individual IP addresses or IP ranges.

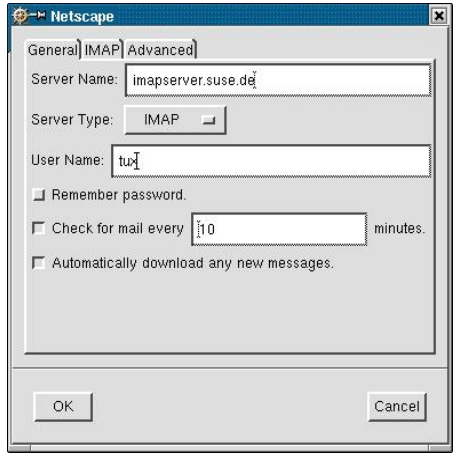

Figure 8.2: *IMAP Server Configuration*

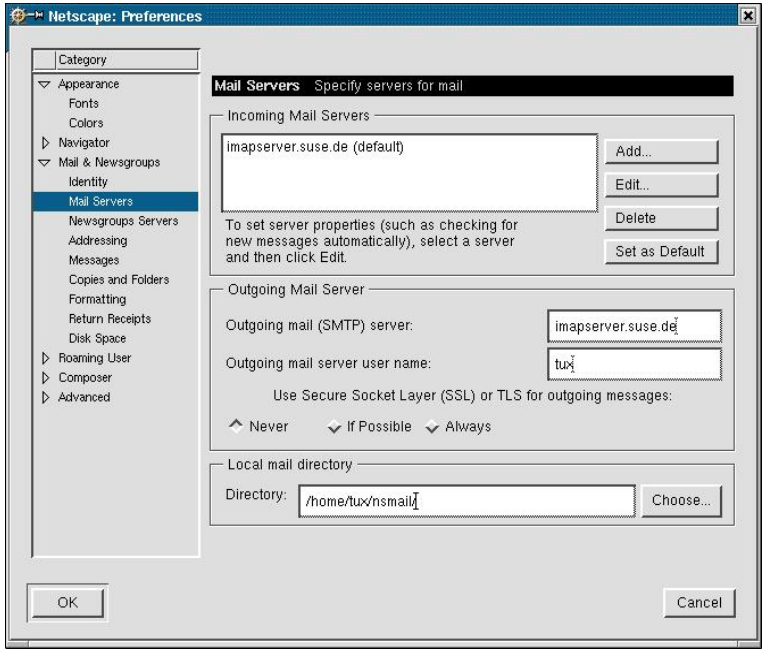

Figure 8.3: *Mail Server Configuration*

Make a backup copy of the file `/etc/openldap/slapd.conf`. Edit the file, inserting the **bold lines** at the respective positions. In this example, users of the IP address `192.168.0.100` and the entire network `10.10.0.0/255.255.0.0` are granted read access. Modify/expand these values for your network. This is merely an excerpt from the file. Do not change the other entries.

```
# Define global ACLs to disable default read access.
access to *
    by peername="ip=127.0.0.1:*" read
       by peername="ip=192\.168\.0\.100" read
       by peername="ip=10\.10\..*" read
    by users read
    by * none


# Public Address Book
access to dn.subtree="o=AddressBook,dc=suse,dc=de"
  by group="cn=AddressAdmins,o=AddressBook,dc=suse,dc=de" write
     by peername="ip=192\.168\.0\.100" read
     by peername="ip=10\.10\..*" read
  by users read
  by * none


# handle write access to the personal data (system address book)
# - first look at the OpenLDAPaci attribute
# - if that doesn't exist or the user-dn is not in the
#   subject clause, give write access to the owner of the
#   entry and read acces to anyone else
access to dn="uid=[^,]+,dc=suse,dc=de" attr=c,cn,
telephoneNumber,facsimileTelephoneNumber,pager,title,
givenname,sn,l,description,mail,street,postalCode,st,
homePhone,ou,initials,mobile,labeledURI,preferredLanguage,
entry,objectclass
  by aci write break
  by self write
  by users read
  by peername="ip=192\.168\.0\.100" read
  by peername="ip=10\.10\..*" read
  by peername="ip=127\.0\.0\.1" read
  by * none
```

File 1: *Configuration File slapd.conf*

Finally, restart the LDAP service with the following command: `rcldap restart`. If you experience problems, simply restore the backup copy, restart LDAP, and check the performed modifications. Further information is provided in the man page `man slapd.conf`.

To access the global LDAP address book of the SUSE LINUX Openexchange Server with Netscape Communicator, perform the following configuration. Start Netscape and select 'Communicator' → 'Address book'. In address book, choose 'File' → 'new directory ...' to add a new entry for a directory server. In the dialog that opens, enter the name of your organization in 'description'. As 'LDAP server', enter the full name of your SUSE LINUX Openexchange Server. As 'server root', enter the LDAP BaseDN for the SUSE LINUX Openexchange Server. See Figure 8.4. Close and save by clicking 'OK'.

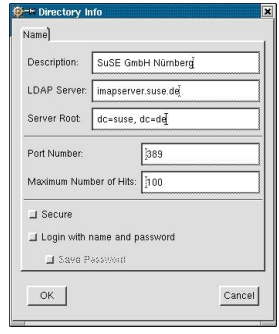

Figure 8.4: *Directory Information*

Use 'Search for ...' to query the address book of the SUSE LINUX Openexchange Server.

8.3 Netscape Communicator Version 6.x and Mozilla 0.9x

Configuration of Netscape Communicator version 6.x and the Open Source browser Mozilla work identically as both browsers use the same “engine” to display web pages. The configuration description uses Netscape Communicator only, but it is completely analogous to Mozilla’s configuration. Because of ongoing development, your version may vary slightly from the screen shots here.

8.3.1 Configuring IMAP

To configure IMAP, start the program. Enter the mail client by choosing ‘Tasks’ → ‘E-Mail’. If no configuration for an e-mail account is present, a configuration assistant opens automatically. Otherwise open the assistant manually with ‘Edit’ → ‘Mail/Forum account settings . . . ’ and clicking ‘new account’.

Figure 8.5: *Netscape V.6 Server Information*

Choose the account type in ‘ISP or Provider e-mail’ and click ‘Next’ to continue. In the ‘Identity’ window, enter the complete user name and e-mail address into the respective fields.

Click ‘Next’ to confirm the settings and continue to the server information configuration. Enter the full name of the SUSE LINUX Openexchange Server as the incoming and outgoing server. As server type for the incoming mail server, select IMAP. Also see Figure 8.5.

The next step of the configuration is the 'Username' window. Enter the login name (UID) of the SUSE LINUX Openexchange Server user in the corresponding field. Enter the name under which it should be listed in the client in 'Account name'. A short summary of the account details is then displayed. To save the account, click 'Finish'.

Select 'Edit' → 'E-Mail/Forum account settings . . . ' and choose 'Server settings' from the list to the left. Click 'Advanced' to access the advanced IMAP settings. Deactivate 'Show only subscribed folders'. This dialog is shown in Figure 8.6. Close the window by clicking 'OK'.

Figure 8.6: *Netscape V.6 Advanced IMAP Server Settings*

Select 'Server for outgoing Mail (SMTP)' and check that the entry matches the full name of your SUSE LINUX Openexchange Server. Also verify that the setting for using your name and password are deactivated. See Figure 8.7 on the next page.

Confirm the dialog with 'OK', which returns you to the main menu of Netscape's mail client. There, configure an overview of folders. Select 'file' → 'subscribe . . . ' from the menu bar to view all available folders. Make your choice of folders you want to monitor on the main screen. The configuration is completed and the mail client is ready to be used with the SUSE LINUX Openexchange Server.

8.3.2 Configuring the LDAP Address Book

Netscape Communicator Version 6.x and Mozilla Version 0.9x do not support the LDAP address book.

Figure 8.7: *Netscape V.6: Outgoing Mail Server Settings*

8.4 KMail Version 1.3 or Higher

KMail, a power e-mail client for Linux, was developed in the scope of the KDE project and can (starting from version 1.3) be used to access IMAP mail boxes. Accessing an LDAP directory is not yet possible.

Start KMail by clicking its icon or entering `kmail` in a terminal window. When KMail is started for the first time, the mail directory is created in your home directory. Confirm this by clicking 'OK'. The local mail folder is usually not required for IMAP, but KMail saves sent mail there. Click 'Settings' → 'Configure KMail' to configure the program. Choose 'Identity' from the left column and fill in the needed fields. The dialog is shown in Figure 8.8 on the following page.

Select 'Network' from the left column. Click 'Add'. Select 'IMAP' as the account type and click 'OK'. In the next window, enter the needed information for the IMAP mail box as shown in Figure 8.9 on the next page.

Click 'OK' to continue to the dialog in which to specify all settings for sending and receiving mails, shown in Figure 8.10 on page 97. Leave the settings for 'Port' and 'folder prefix'. Choose 'Show hidden folder' and 'Save IMAP password', if desired. Confirm the settings by clicking 'OK' then specify the SMTP server for outgoing mails. The port should be `25`.

Confirm the settings by clicking 'OK'. The configuration is completed and you can now use KMail with the SUSE LINUX Openexchange Server.

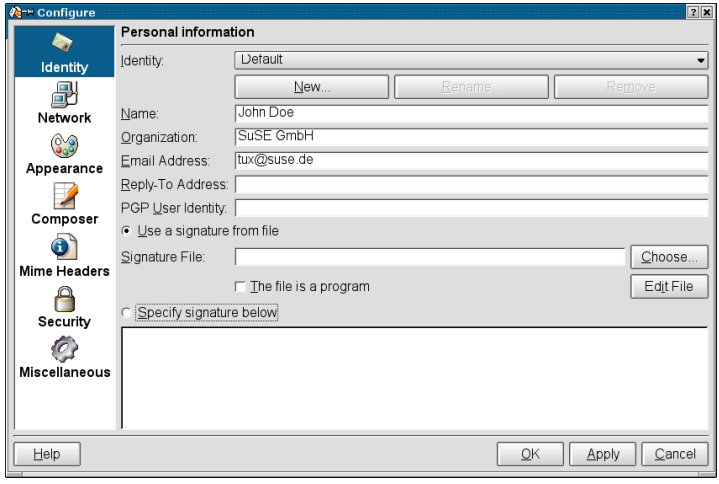

Figure 8.8: *KMail Personal Information*

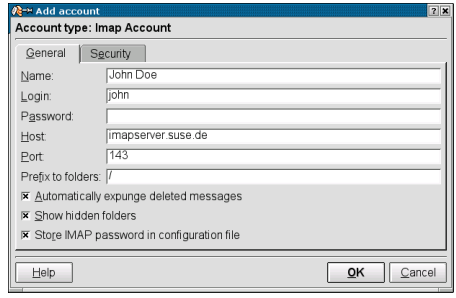

Figure 8.9: *Creating a KMail IMAP Mail Box*

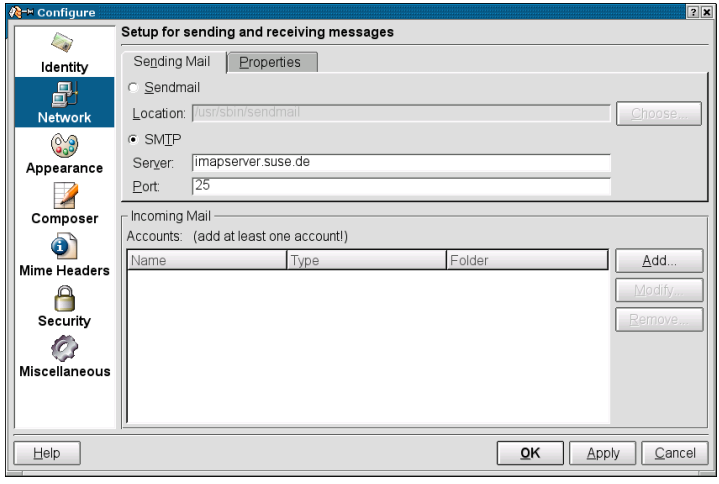

Figure 8.10: *E-Mail Settings*

8.5 Pine Version 4.33

8.5.1 Configuring the IMAP Mail Client

All options of the mail program Pine are specified in its configuration file `.pinerc` in your home directory. The configuration file is a simple ASCII text file that can be modified with any text editor. Only use an editor that does not automatically insert line breaks, for example, the Midnight Commander editor (mcedit) or vi.

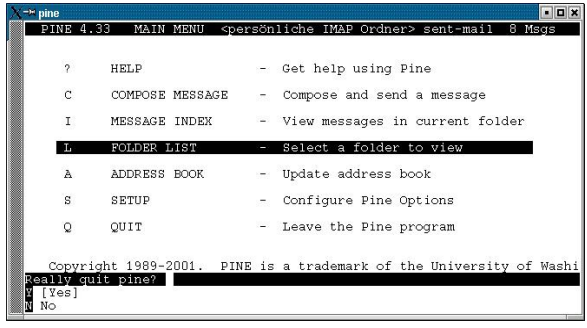

Figure 8.11: *Pine's Main Menu*

If the user has not started Pine before, no configuration file has been created yet in the home directory. Pine only creates it when first starting. Start Pine and exit the welcome screen by pressing (E). This continues to the main menu, shown in Figure 8.11, where you can quit the program by pressing (Q) and confirm by pressing (Y). The configuration file has been created.

Now edit the configuration file `.pinerc`. To ensure access to the IMAP folders on the SUSE LINUX Openexchange Server, look for the following options and change them according to your setup. Next to every option, view a short explanation, marked with the comment symbol `'#'`.

```
personal-name=John Q. Public
# The user's complete name

smtp-server=imapserver.suse.de
# The full name of your SUSE LINUX Openexchange Server ,
# used to send your e-mail

default-fcc={imapserver.suse.de/user=tux}INBOX.sent-mail
```

```
# The IMAP folder in which copies of sent mail should be stored.
# It consists of the complete server name and the user's login name
# on the EMail server. In our example, these are
# Server name=imapserver.suse.de and the login name (UID)=tux

incoming-folders={imapserver.suse.de/user=tux}INBOX
# The user's incoming folder. This entry also consists of
# the complete server name and the user's login name on
# the mail server. In our example, these are
# Server name=imapserver.suse.de and the login name (UID)=tux

folder-collections="SuSE IMAP folders" {imapserver.suse.de/user=tux}[*],
      "personal IMAP folders" {imapserver.suse.de/user=tux}INBOX.[*]
# This entry creates two parent folders in Pine that will contain
# the publicly accessible folders (SuSE IMAP folders) and your
# personal folders (personal IMAP folders) on the mail server.
# This entry also consists of
# the complete server name and the user's login name on
# the mail server. In our example, these are
# Server name=imapserver.suse.de and the login name (UID)=tux
# You can enter any folder name (SuSE IMAP folders and personal fold-
ers), but
# these should reflect the real folders on the SUSE LINUX Openexchange
Server

rsh-open-timeout=0
# Until this time-out has elapsed, Pine will try to establish
# an rsh connection to the mail server. It is not needed
# in the configuration and can be turned off by entering
# 0.

disable-these-authenticators=CRAM-MD5
# List of authentication methods that pine should not use.
# In this case, CRAM-MD5.
```

File 2: *Configuration file .pinerc*

When performing the changes detailed above, pay attention to the correct positions of the curly braces and square brackets as well as the case of the folder names. Save the file and start Pine by entering `pine`. Press Ⓛ in Pine's main menu to reach the 'Collection List', which shows all folders in Pine.

Highlight a folder with the arrow keys and enter it by pressing ↵. Enter your password to reach the IMAP folders on the SUSE LINUX Openexchange Server. See Figure 8.12 on the following page and Figure 8.13 on the next page.

In the folder view, Pine differentiates incoming, public, and other personal folders. For this reason, your IMAP inbox will not be found in the folder overview. Instead, it is located below the Collection List in 'Incoming folders'.

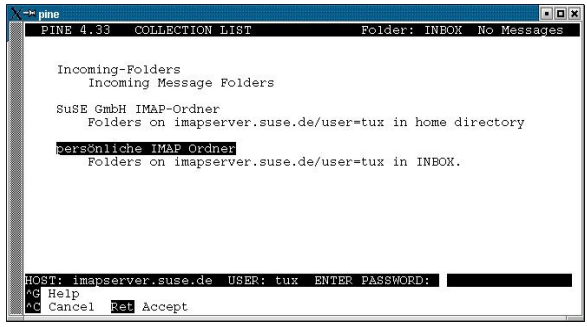

Figure 8.12: *Collection List: Entering the Password*

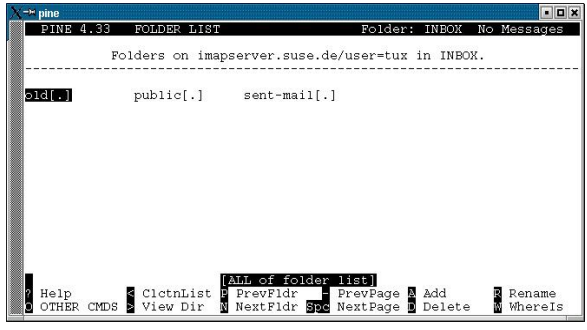

Figure 8.13: *Personal IMAP folders*

8.5.2 Configuring the LDAP Address Book

To access the global address book of the SUSE LINUX Openexchange Server, you need to add another entry to `.pinerc`. Open the file as described in 8.5.1 on page 98 and change the following options according to the example.

```
ldap-servers=imapserver.suse.de:389 "/base=dc=suse, dc=de/nick=
SuSE GmbH Nuremberg"

# Specify the LDAP server and the address book's name as it should
# appear in Pine (SuSE GmbH Nuremberg). The entry consists of
# the complete server name (imapserver.suse.de) with the port
# number and the BaseDN (dc=suse, dc=de).
# The setting nick=SuSE GmbH Nuremberg
# specifies the address book's name.
```

File 3: *Address Book Configuration in .pinerc*

After these final changes in `.pinerc`, you can access the global address book in Pine by pressing (A) in Pine's main menu. Navigate it using the arrow keys and (↵). See Figure 8.14.

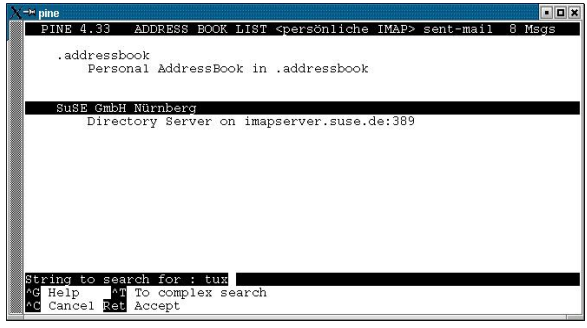

Figure 8.14: *Querying the LDAP Address Book*

Start a detailed query in the address book by pressing (Ctrl) + (T). See Figure 8.15.

Figure 8.15: *Advanced Search in the Address Book*

8.6 Outlook Express Version 5.x and 6.0 and Outlook 2000

Configuration in the Microsoft mail programs Outlook Express and Outlook 2000 is guided by an assistant, which is nearly identical in both versions. The following screen shots were taken in Outlook Express Version 6.0.

8.6.1 Configuring the IMAP Mail Client

After starting Outlook, select 'Tools' → 'Accounts . . . ' to reach the configuration dialog of the usable Internet accounts. Next, click 'Add' then select 'E-Mail' to start the assistant.

In Outlook Express, you have the additional possibility to use 'File' → 'Identities' → 'Add new identities . . . '. In the emerging window, enter a name for the identity and, if desired, a password. Change to the new identity by confirming the change.

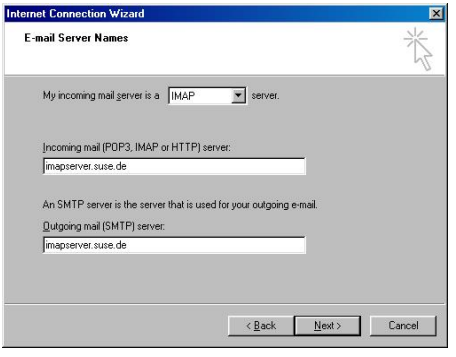

Figure 8.16: *The Mail Server's Name*

Enter the user name when prompted and, in the next step, the e-mail address. In the 'EMail server name' dialog, choose 'IMAP' from the list and enter the name of the SUSE LINUX Openexchange Server in 'Server for incoming mail' and 'Server for outgoing mail'. Refer to Figure 8.16.

Complete the configuration in the following dialog — 'Internet Mail Logon'. Enter the login name on the SUSE LINUX Openexchange Server in 'Account name'. For Outlook to save your password, check 'Save password' and enter it in 'Password'. See Figure 8.17 on the facing page.

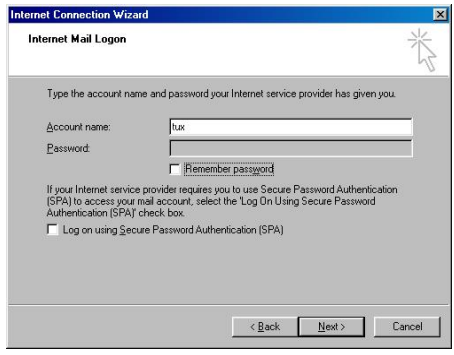

Figure 8.17: *Internet Mail Logon*

If you use Outlook 2000, a dialog appears after 'Internet Mail Logon' in which to choose the type of Internet connection to use when accessing the SUSE LINUX Openexchange Server. This choice depends on several factors in your network. Contact the administrator of the SUSE LINUX Openexchange Server if problems occur. Click 'Next' to reach the next dialog.

After completing the configuration, you will see a note that all folders of the newly created e-mail accounts are hidden. It asks whether you want to see a list of these folders. Select 'Yes' to open the 'Show/Hide IMAP folders' dialog in which to make the desired folders visible. See Figure 8.18. If a subfolder does not appear in the list, click 'Reset' to refresh the list of accesible folders.

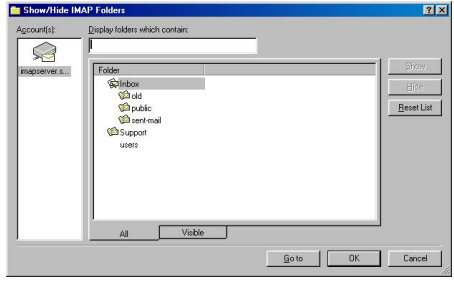

Figure 8.18: *Show/Hide IMAP Folders*

This dialog can also be reached with 'Tools' → 'IMAP folder'.

8.6.2 Configuring the LDAP Address Book

To use the LDAP address book of the SUSE LINUX Openexchange Server in Outlook, open the 'Address book' from the 'Tools' menu. In the following dialog, click 'Tools' → 'Accounts'. The dialog that opens is shown in Figure 8.19. Click 'Add' and enter the name of your SUSE LINUX Openexchange Server in 'Directory server (LDAP)'. Close the assistant by clicking 'Next' then 'Finish'.

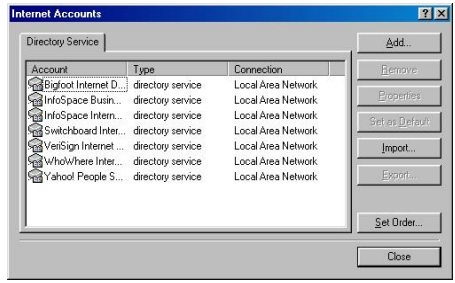

Figure 8.19: *Internet Accounts*

In the list of available directory service accounts, select the entry for your SUSE LINUX Openexchange Server. Then select 'Settings' from the right pane. Under 'Advanced', enter the LDAP BaseDN in 'Search base'. Refer to Figure 8.20 on the next page. These values can be obtained from the administrator of the SUSE LINUX Openexchange Server.

This example uses the domain `suse.de` and the BaseDN `dc=suse,dc=de`. Usually, the BaseDN matches the domain. The UID (login name) in this example is the user with the mail address `user@suse.de`.

There are three address books:

- the system address book:
  The BaseDN for the configuration in this case is `dc=suse,dc=de`. You can log in anonymously.
- the public address book:
  The BaseDN is in this case `o=addressbook,dc=suse,dc=de`. Logging in can also be done anonymously.
- The user's private address book:
  The BaseDN in our example is `ou=addr,uid=user,dc=suse,dc=de`. Log in with your user name and password here. In this example, the user name is `uid=user,dc=suse,dc=de`. The password is your usual password.

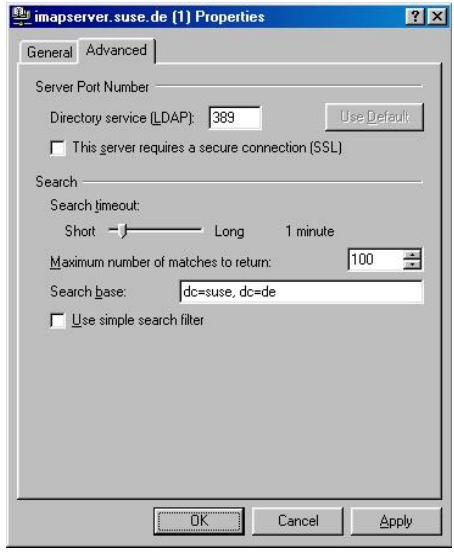

Figure 8.20: *Advanced Settings of the Directory Service Account*

Glossary

CA (Certification Authority)
A certification authority is authorized for issuing certificates for servers and clients. The SUSE LINUX Openexchange Server features a CA. Certificates help verify the identity of the server or client. They are used, for example, to guarantee secure access to the server for a client located outside of the local network, if the client can prove his authenticity. For the client to authenticate the server, the certificate must be saved by the client. Otherwise, some clients will doubt the server's validity or even completely refuse to set up the connection.

certificate
A certificate is a user's "ID card," which allows use of certain services on the SUSE LINUX Openexchange Server. The user certificate is stored locally on the user's client and should not be accessible to other users. Only users with certificates could be allowed to set up a secure connection to the server.

Dial-on-Demand
If SUSE LINUX Openexchange Server is not connected to the Internet over a leased line, it is typically implemented "dial on demand". This is used by the SUSE LINUX Openexchange Server to automatically set up a connection to the provider if mail is waiting in the queue to be sent or if ☞ *Fetch Mail* should retrieve mail from the provider.

DNS (Domain Name Service)
see ☞*name server*

Fetch Mail
The Fetch Mail function is used for retrieving e-mails from a remote POP3 or IMAP server. This is normally only necessary if the SUSE LINUX

Openexchange Server does not have an official IP address reachable by the Internet or if it is not recognized by remote name servers by way of an mx entry. For experts: Fetch Mail is a special SUSE LINUX Openexchange Server function and is not the same as the package `fetchmail`, although it has the same name. Fetch Mail manages the multidrop procedure. See also ☞*multidrop*.

filter
A filter can be used to limit a listing. In the simplest scenario, the filter entry is `'*'`. `*` is a universal placeholder for one or more arbitrary characters. The filter entry `sch*`, for example, lists all names beginning with "sch". The filter `*sch*` lists all names containing "sch". Entering only `*` lists all names.

folders
A folder is essentially a mailbox where e-mails are stored. Allowing several users various permissions for different folders is made possible by assigning permissions to the folder itself (such as reading, writing, and deleting). Common folders can be created by the mail administrator and given respective access permissions. Each user has a "personal" folder. Generally, this is the `INBOX` folder with its subfolders. Users can even transform their `INBOX` to a common folder simply by assigning permissions (for example, read-only access for another user). However, it makes more sense to add another subfolder to the `INBOX` (e.g., `INBOX.public`, which often already exists) then share it with other users as a common folder.

groups
A group includes several users who obtain the same permissions or properties for any particular reason. A user belongs to at least one group. The default group name on the SUSE LINUX Openexchange Server is `users`. This group is the primary group. Every user can also belong to other groups, known as secondary groups. This way, users from several groups can share different permissions to various files in the Unix world. Example: in your company (`company.com`), some coworkers belong to the sales department and others to the IT department. The groups `sales` and `technology` can be created and one of them assigned to your coworkers as a secondary group. A single user can exist in both groups. A mailing list can also be implemented using the 'Direct mail delivery to groups' function. To do this, create a folder (with mail reception) and call it `sales`. Now, in this folder, after setting up the 'Direct mail delivery' to the group `sales`, all group members will receive a copy of e-mails sent to `sales@company.com`. At the same time, e-mails are also stored in the

`sales` folder, meaning that the administrator or a user with the right permissions should empty the folder periodically.

IMAP (Internet Mail Access Protocol)
IMAP allows clients to access mail server folders. The data (e-mail) is stored centrally on the server. This allows the use of common folders. The TCP/IP connection via IMAP takes place over port 143. Further specifications can be found in RFC 2060.

LDAP (Lightweight Directory Access Protocol)
LDAP is used to access the database that the SUSE LINUX Openexchange Server uses for storing practically all types of user information. External clients can contact the server over port `389`. BaseDN (Base Distinguished Name) is the "highest level" of the hierarchical directory structure in this process. Unless the administrator has not specified otherwise, this can be, for example, dc=company, dc=com for the domain `company.com`. More in-depth information can be found at `http://www.openldap.org/`

mailing list
see ☞*groups*

multidrop
A multidrop mailbox is a typical ☞*POP3* account where the e-mail of an entire domain is stored. Mail must be retrieved from there by way of POP3 and distributed on the target system. Information has been lost, because SMTP transport has already been taken care of by the provider. The most important data here is the "envelope recipient" address. An e-mail consists of an envelope, a header, and a body. The envelope is generated during the transfer from MTA (Mail Transfer Agent) to MTA. This is comparable to postal stamps on letters. Once the mail is deposited, the envelope disappears. This does not usually cause any problems, since mail is sent from one user to another. The recipient in the envelope corresponds to the recipient in the mail header ("To:"). However, if users are subscribed to a mailing list, for example, the target address would read `To:mailinglist@domain.com` for each user who receives this e-mail. The actual recipient is conferred during transport by the SMTP command `RCPT TO`. As soon as the e-mail has reached the target server, this information is lost. Not irrevocably lost, of course, because otherwise no software could retrieve e-mail from the multidrop mailboxes at all. The target address leaves its "trail" in the form of "Received:" lines in the mail header. The actual recipient can be extracted from these lines. Unfortunately, this information is not standardized — every MTA writes these lines differently. This could lead to mail delivery errors, so multidrop mailboxes should be avoided whenever possible.

name server (DNS)

The purpose of a name server is to resolve host names into IP addresses and vice versa. The SUSE LINUX Openexchange Server has its own name service for managing its domains. You can also leave this task up to a name server located on your network. The SUSE LINUX Openexchange Server uses BIND8, the configuration files for which are stored under `/var/named/` and in `/etc/named.conf`. These files are automatically created when installing the SUSE LINUX Openexchange Server and when virtual domains are added ('Export'). To make permanent changes, use the template file `/etc/named.conf.in`.

Only for experts: note that flawed entries could crash your SUSE LINUX Openexchange Server! If your SUSE LINUX Openexchange Server is the official delegate for your name service in the Internet as well, you will need at least one other name server and should enter another mail server as "backup mail server". Additional NS (Name Service) and MX (MaileXchanger) entries are required to do this. Click the main menu item 'System' then 'LDAP Browser'. Now click 'Start search'. Afterwards, click the cross in front of 'o=DNS' then the link with the name 'relativeDomainName=@'. Make changes in the screen that follows. As you can see, entries for nSRecord and mXRecord already exist. To insert an additional MX entry, write mXRecord in the smaller entry field under 'New' and the priority and name of the mail server in the long field next to it. Proceed with the the NS record accordingly. To make the changes effective, click, in the main menu, 'Virt. users', then 'Virt. domains', and, finally, 'Export'.

POP3 (Post Office Protocol)

POP3's function is to retrieve e-mails from a mail server set up for this purpose. The respective TCP/IP connection to the server is set up over port `110` and is controlled by simple data transfer commands (e.g., `HELO`, `USER`, and `PASS`). The default configuration of the SUSE LINUX Openexchange Server is for POP3, allowing clients to retrieve e-mails using this protocol. Also, ☞*Fetch Mail* can use POP3 to retrieve e-mails from another server (such as from the provider). The description of this Internet standard can be found in ☞*RFC939*.

Postfix

Postfix is an MTA (Mail Transfer Agent). Complete documentation on Postfix can be found at `http://www.postfix.org/`, including a question and answer list (FAQ). For experts: for security reasons, Postfix components on the SUSE LINUX Openexchange Server run in a `changeroot` environment under `/var/spool/postfix/`. Whenever changes are made manually in configuration files under `/etc/`, these elements will

have to be entered in `/var/spool/postfix/etc/`. Run SuSEconfig and it will take care of this for you.

quotas
Memory available for users can be limited with the help of quotas. This is recommended, because hard disk space can become scarce in the face of a growing user pool and an increasing number of stored e-mails. Example: you have created 200 users who consume an average of 5 MB space. The user's e-mails alone already take up 1000 MB of the hard disk. The default quota is 10 MB. Hard disk requirements then reach a maximum of 2000 MB.

relay host
If you are not able to send e-mail "directly" to the Internet, specify a relay host. This is a machine of your provider, which receives and forwards e-mail destined for remote addresses via ☞*SMTP*. A relay host usually needs to be specified whenever a dial-up Internet connection is used — the server cannot have a static IP address. Your provider can provide information about what relay host to access.

RFC (Requests For Comments)
RFCs describe protocols and somewhat define the default as well. A list of all RFCs can be found at `http://the.rfceditor.org/`.

SASL (Simple Authentication and Security Layer)
This function serves to authenticate mail clients for the server. More information can be found in the man page `man sasl` and RFC 2222.

SIEVE
SIEVE is a "standardized" language for creating mail filters. It is not necessary to understand the syntax of this language. That is taken care of by the configuration front-end. For experts: with the SIEVE editor, generate your own filter scripts or add already existing ones. A description of the script language SIEVE can be found in RFC 3028 or at `http://www.cyrusoft.com/sieve/`.

SMTP Simple Mail Transport Protocol
E-mails are sent to the e-mail server via SMTP. Likewise, the SUSE LINUX Openexchange Server uses SMTP to send mail to other mail servers in the Internet (e.g., to a relay host). A TCP/IP connection over port 25 is used for this purpose. A more detailed description of SMTP can be found in RFC 2821.

SSL (Secure Socket Layer)
see ☞*TLS*

TLS (Transport Layer Security)
: TLS encrypts data to transfer. A relevant description can be found in RFC 2246.

UID (User Identification)
: This is the login name with which the user logs into the system. This can be eight characters long, may not contain any special characters or spaces, can only consist of lowercase letters, and must be unique for each user. Abnormal e-mail addresses must be represented by aliases. Example user names are user and a1234. The login name is the same as the e-mail address, in this case `user@company.com` and `a1234@company.com`.

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