Red Hat Reference Architecture Series

# Deploying the Zimbra™ Collaboration Suite on Red Hat® Enterprise Linux® 5

| Zimbra™ Collaboration Suite |
| --- |
| Red Hat® Enterprise Linux® 5 |
| X86-64 Servers |

**Version 1.0**

**November 2008**

redhat.

Zimbra

**Deploying the Zimbra™ Collaboration Suite on Red Hat® Enterprise Linux® 5**

1801 Varsity Drive
Raleigh NC 27606-2072 USA
Phone: +1 919 754 3700
Phone: 888 733 4281
Fax: +1 919 754 3701
PO Box 13588
Research Triangle Park NC 27709 USA



The GPG fingerprint of the security@redhat.com key is:
CA 20 86 86 2B D6 9D FC 65 F6 EC C4 21 91 80 CD DB 42 A6 0E

# Table of Contents

# 1. Zimbra Collaboration Suite (ZCS) Single Server Network Edition

The Zimbra Collaboration Suite includes the Zimbra MTA, the Zimbra LDAP server, and the Zimbra mailbox server. In a single-server installation, all components are installed on one server and require no additional manual configuration.

This installation guide is a quick start guide that describes the basic steps needed to install and configure the Zimbra Collaboration Suite in a direct network connect environment. In this environment, the Zimbra server is assigned a domain for which it receives mail, and a direct network connection to the Internet. When the Zimbra Collaboration Suite is installed, you will be able to log on to the Zimbra administration console to manage the domain and provision accounts. The accounts you create will be able to send and receive external email.

This guide includes the following sections:

- Important Notice About Single Server Installations
- Installation Prerequisites
- Modifying Operating System Configurations
- Configure DNS
- Overview of Installation Process
- Downloading the Zimbra Software
- Zimbra License Requirements for ZCS Network Edition
- Basic Configuration
- Installing Zimbra Software
- Provisioning Accounts
- Support and Contact Information

## *1.1 Important Notice About Single Server Installations*

The Zimbra Collaboration Suite is designed to be the only application suite installed on the server. The Zimbra Collaboration Suite bundles and installs, as part of the installation process various other third party and open source software, including Apache Jetty, Postfix, OpenLDAP®, and MySQL®. The versions installed have been tested and configured to work with the Zimbra software. See the Administration Guide for a complete list of software.

**Note:** *A Zimbra license is required in order to create accounts on the Network Edition Zimbra Collaboration Suite server. You cannot install ZCS without a license. See* ***"Zimbra License Requirements for ZCS Network Edition (section 1.7)****.*

Table 1 shows the default port settings when the Zimbra Collaboration Suite is installed.

**Table 1 Zimbra Port Mapping**

| | Port |
|---|---|
| Remote Queue Manager | 22 |
| Postfix | 25 |
| HTTP | 80 |
| POP3 | 110 |
| IMAP | 143 |
| LDAP | 389 |
| HTTPS | 443 |
| Mailboxd IMAP SSL | 993 |
| Mailboxd POP SSL | 995 |
| Mailboxd LMTP | 7025 |

**Important:** *You cannot have any other web server, database, LDAP, or MTA server running, when you install the Zimbra software. If you have installed any of the applications before you install Zimbra software, disable these applications. During the ZCS install, Zimbra makes global system changes that may break applications that are on your server.*

# *1.2 Installation Prerequisites*

In order to successfully install and run the Zimbra Collaboration Suite, ensure your system meets the requirements described in this section. System administrators should be familiar with installing and managing email systems.

## 1.2.1 System Requirements

For the ZCS system requirements see Other Dependencies in **"System Requirements for Zimbra Collaboration Suite 5.0" (Appendix A)**.

**Note:** *To find SSH client software, go to Download.com at http://www.download.com/ and search for SSH. The list displays software that can be purchased or downloaded for free. An example of a*

*free SSH client software is PuTTY, a software implementation of SSH for Win32 and Unix platforms. To download a copy go to http:// putty.nl/ .*

## *1.3 Modifying Operating System Configurations*

Configuration modifications for Red Hat Enterprise Linux are described throughout this guide.

**Important:** *Zimbra recommends that Red Hat Enterprise Linux is updated with the latest patches that have been tested with ZCS. See the latest release notes to see the operating systems patch list that has been tested with ZCS.*

### 1.3.1 Installation Modifications for Red Hat® Enterprise Linux®

The Zimbra Collaboration Suite runs on the Red Hat Enterprise Linux, version 4 operating system or later. When you install the Red Hat software for the Zimbra Collaboration Suite accept the default setup answers, except for:

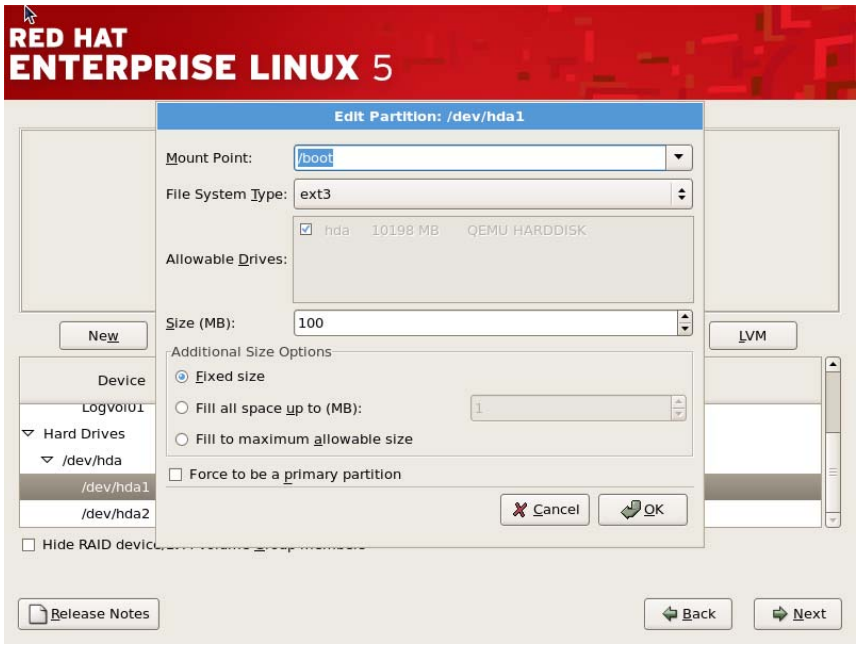
- Disk Partition Setup,
- Network Configuration,
- Gateway and Primary DNS addresses,
- Edit Interface, and
- Firewall Configuration.

Details of what should be modified in these categories are listed below. Refer to the Red Hat Enterprise Linux installation guide for detailed documentation about installing their software.

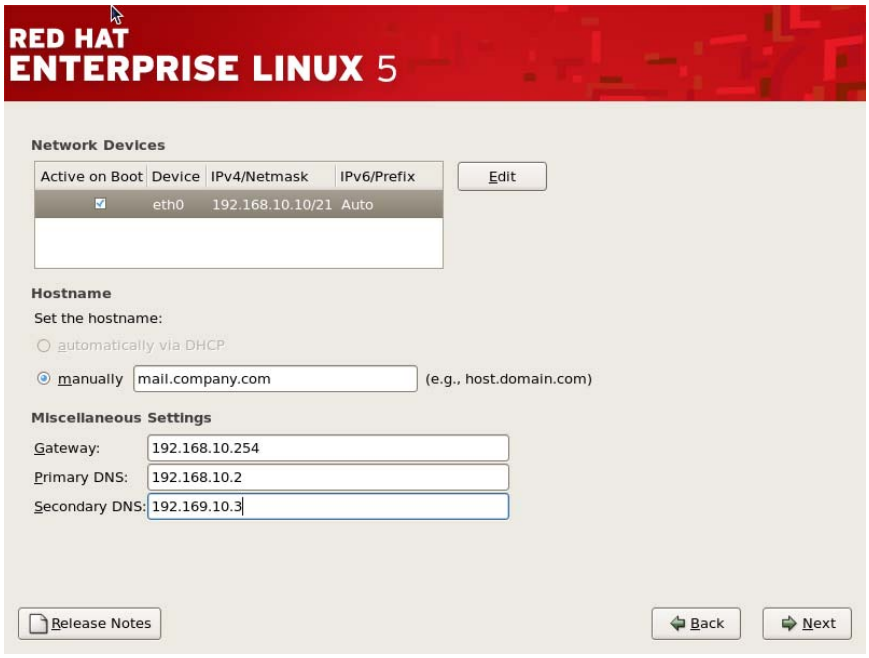
**Important:**

- **Disk Partitioning Setup**. Check **Manually partition with DiskDruid**. The disk partition should be set up as follows:
  - The **Mount Point/RAID Volume** size for the **Boot** partition (/)should be 100 MB.
  - The **Swap** partition should be set to twice the size of the RAM on your machine.

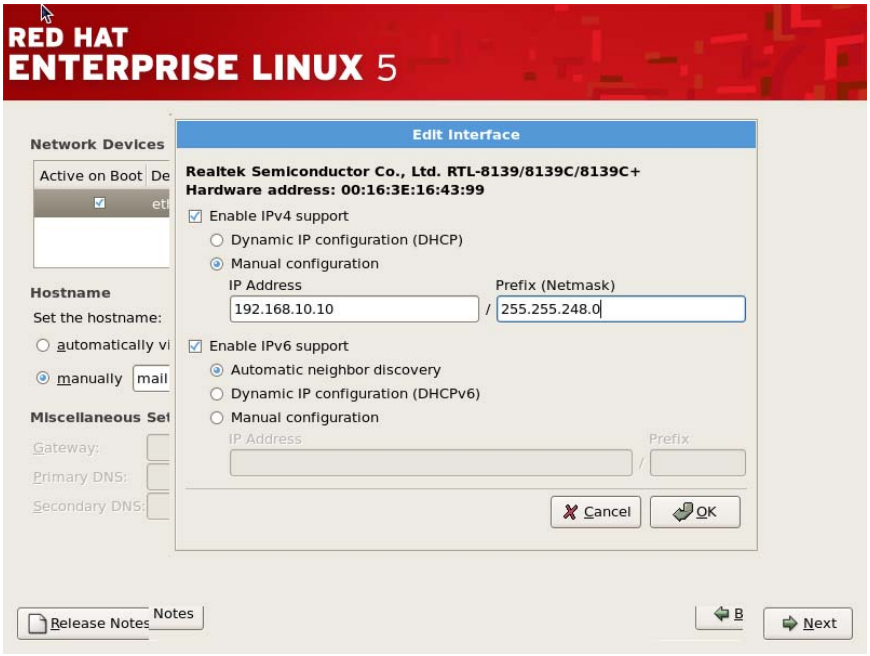
- The **Root** partition (/) should be set with the remaining disk space size.

- **Network Configuration>Network Devices>Hostname** should be configured manually with the fully qualified hostname [*mail.company.com]* of the Zimbra server.




- Enter the **Gateway** and **Primary** DNS addresses.
- In the **Edit Interface** pop-up screen, check **Activate on Boot**. Enter the **IP Address** and **Netmask** of the device. This allows the interface to start when you boot.




- **Firewall Configuration** should be set to **No firewall**, and the **Security Enhanced Linux** (SELinux) should be disabled.

**Important:** *You will need to disable Sendmail in order to run the Zimbra Collaboration Suite. You can disable the Sendmail service with these commands:* **`chkconfig sendmail off`**, **`service sendmail stop.`**

**Important:** *Make sure that FQDN entry in* **`/etc/hosts`** *appears before the hostnames. If this is missing, the creation of the Zimbra certificate fails. The FQDN entry should look like this example. See* **`zmcreatecert`** *in the* ***Zimbra Administrator's Guide, Appendix A: Command-Line Utilities****.*

```
127.0.0.1               localhost.localdomain localhost
your.ip.address         FQDN yourhostname
```

## 1.4 Configure DNS

In order to send and receive email, the Zimbra MTA must be configured in DNS with both A and MX records. For sending mail, the MTA uses DNS to resolve hostnames and email-routing information. To receive mail, the MX record must be configured correctly to route the message to the mail server.

During the installation process, ZCS checks to see if you have an MX record correctly configured. If it is not, an error is displayed suggesting that the domain name have an MX record configured in DNS.

You must configure a relay host if you do not enable DNS. After ZCS is installed, go to the **Global Settings>MTA** tab on the administration console and uncheck **Enable DNS lookups**. Enter the relay MTA address to use for external delivery.

**Note:** *Even if a relay host is configured, an MX record is still required if the ZCS server is going to receive email from the Internet.*

## 1.5 Overview of Installation Process

When you run the install script, the Zimbra install verifies that the correct prerequisite packages are available to be installed.

- **Zimbra Core** installs the libraries, utilities, and monitoring tools.
- **Zimbra LDAP** installs the OpenLDAP software, which provides open source LDAP directory services.
- **Zimbra MTA** installs the Postfix open source MTA, the Clam AntiVirus antivirus engine, the SpamAssassin junk mail filter, and the Amavisd-New content filter.
- **Zimbra Store** installs the mailbox server, including Jetty, the servlet container for the Zimbra server.
- **Zimbra Spell** installs the Aspell open source spelling checker.
- **Zimbra Apache** is installed automatically when Zimbra Spell or Zimbra Convertd (See Note) is installed.

**Note:** *The zimbra-convertd package is a beta package for Network Edition customers that implements the ZCS 6.0 method of using convertd. For more information, contact Zimbra support.*

- **Zimbra SNMP** installs the SNMP package for monitoring. This package is optional.
- **Zimbra Logger** installs tools for syslog aggregation, reporting, and message tracing. If you do not install Logger, you cannot use the message trace feature, the server statistics are not captures, and the server statistics section of the administration console does not display.
- **Zimbra Proxy** installs the proxy feature which can be configured for POP and IMAP proxy and for reverse proxy HTTP requests.
- **Zimbra Archiving** installs the Zimbra Archiving and Discovery feature. This is an optional feature for ZCS Network Edition that offers the ability to store and search all messages that were delivered to or sent by ZCS. When this package is installed on the mail server, the cross mailbox search function is enabled. Using the Archiving and Discovery feature can trigger additional mailbox license usage. To find out more about Zimbra Archiving and Discovery, contact Zimbra sales.

The Zimbra server configuration is menu driven. The installation menu shows you the default configuration values. The menu displays the logical host name and email domain name [mailhost.example.com] as configured on the computer. You can change any of the values. For single server installs, you must define the administrator's password, which you use to log on to the administration console, and you specify the location of the Zimbra license xml file.

## 1.6 Downloading the Zimbra Software

For the latest Zimbra software download, go to www.zimbra.com. Save the Zimbra Collaboration Suite archive file to the computer from which you will install the software.

## 1.7 Zimbra License Requirements for ZCS Network Edition

A Zimbra license is required in order to create accounts in the Network Edition Zimbra Collaboration Suite servers.

A trial license and a regular license are available:

- **Trial**. You can obtain the trial license from the Zimbra license portal for free. The trial license allows you to create up to 50 users. It expires in 60 days.
- **Regular**. You must purchase the Zimbra Regular license. This license is valid for a specific Zimbra Collaboration Suite system and is encrypted with the number of Zimbra accounts (seats) you have purchased, the effective date, and expiration date of the regular license.

Go to Zimbra's Website to obtain a trial license from the Network Downloads area. Contact Zimbra sales to purchase a regular license, by emailing sales@zimbra.com or calling 1-650-212-7767, extension 100.

The regular license can only be installed on the ZCS system for which it is purchased. Only one Zimbra license is required for your Zimbra Collaboration Suite environment.

Current license information, including the number of accounts purchased, the number of accounts used, and the expiration date, can be viewed from **Global Settings>License** tab on the administration console.

## *1.8 Basic Configuration*

The default configuration installs the Zimbra-LDAP, the Zimbra-MTA with anti-virus and anti-spam protection, the Zimbra mailbox server, the SNMP monitoring tools (optional), Zimbra-spell (optional), the logger tool (optional), and the Zimbra proxy (optional) on one server.

The menu driven installation displays the components and their existing default values. You can modify the information during the installation process.

The table below describes the menu options

**Table 2 Main Menu Options**

| Main Menu | Description |
|---|---|
| **1) Common Configuration** - These are common settings for all servers | |
| Hostname | The host name configured in the operating system installation |
| LDAP master host | The LDAP host name. On a single server installation, this name is the same as the hostname. |
| LDAP port | The default port is 389 |
| LDAP Admin password | This is the master LDAP password. |

| | |
|---|---|
| Require secure interprocess communications | By default, startTLS is **YES**. When startTLS is enabled, there is a secure communication between amavis and postfix and the LDAP server.<br>If this is disabled, ZCS disables the use of startTLS with the LDAP server. |
| Time Zone | Select the time zone to apply to the default COS. The time zone that should be entered is the time zone that the majority of users in the COS will be located in. The default time zone is PST (Pacific Time). |

**2) zimbra-ldap**

| | |
|---|---|
| Create Domain | You can create one domain during installation and additional domains can be created from the administration console. |
| Domain to create | The default domain is the fully qualified hostname of the server. If you created a valid mail domain on your DNS server, enter it now. In most cases, you will accept the default. |
| LDAP Root password | The root LDAP password for internal LDAP operations. |
| LDAP Replication password | This is the password used by the LDAP replication user to identify itself to the LDAP master and must be the same as the password on the LDAP master server. |
| LDAP Postfix password | This is the password used by the postfix user to identify itself to the LDAP server and must be configured on the MTA server to be the same as the password on the LDAP master server. |
| LDAP Amavis password | This is the password used by the amavis user to identify itself to the LDAP server and must be configured on the MTA server to be the same as the password on the LDAP server. |

| | |
|---|---|
| LDAP Nginx password | This is the password used by the nginx user to identify itself to the LDAP server and must be configured on the MTA server to be the same as the password on the LDAP server. |

**3) zimbra-store**

| | |
|---|---|
| Create Admin User | The administrator account is created during installation. This account is the first account provisioned on the Zimbra server and allows you to log on to the administration console. |
| Admin user to create | The default is admin@[mailhost.example.com]. |
| Admin Password | You must set the admin account password. The password is case sensitive and must be a minimum of six characters. The administrator name, mail address, and password are required to log in to the administration console. |
| Enable automated spam training | By default, the automated spam training filter is enabled and two mail accounts are created.<br>1. ***Spam Training User*** to receive mail notification about mail that was not marked as junk, but should have been.<br>2. ***Non-spam (HAM) Training User*** to receive mail notification about mail that was marked as junk, but should not have been.<br>These addresses are automatically configured to work with the spam training filter. The accounts created have a randomly selected name. To recognize what the account is used for, you may want to change this name. |
| Global Documents Account | The Global Documents account is automatically created when ZCS is installed. The Global Documents account holds the templates and the default Documents Notebook. The Documents feature is enabled for the COS or for individual accounts |

| | |
|---|---|
| The default port configurations are shown | • **SMTP host**<br>• **Web server HTTP port**: 80<br>• **Web server HTTPS port**: 443<br>• **Web server mode** — Can be HTTP, HTTPS, Mixed, Both or Redirect.<br>**Mixed** mode uses HTTPS for logging in and HTTP for normal session traffic<br>**Both** mode means that an HTTP session stays HTTP, including during the login phase, and an HTTPS session remains HTTPS throughout, including the login phase.<br>**Redirect** mode redirects any users connecting via HTTP to an HTTPS connection.<br>All modes use SSL encryption for back-end administrative traffic.<br>• **IMAP server port**: 143<br>• **IMAP server SSL port**: 993<br>• **POP server port**: 110<br>• **POP server SSL port**: 995<br>• **Use spell checker server**, default **Yes** (if installed)<br>• **Spell server URL**: http://<example.com>:7780/aspell.php |
| License file name | **Unset** (Network Edition). The license file must be saved to the server in order to add it to ZCS during the install process. Enter the name and location for the Zimbra license file to have the license installed as part of the installation. |

**5) zimbra-mta**

| | |
|---|---|
| | • **MTA Auth host —** This is configured automatically if the MTA authentication server host is on the same server, but must be configured if the authentication server is not on the MTA.<br>• **Enable Spamassassin** — Default is enabled.<br>• **Enable ClamAV** — Default is enabled.<br>• **Notification address for AV alerts** — Sets the notification address for AV alerts. You can either accept the default or create a new address. If you create a new address, remember to provision this address from the admin console.<br><br>**Note:** *If the virus notification address does not exist and your host name is the same as the domain name on the Zimbra server, the virus notifications queue in the Zimbra MTA server cannot be delivered.*<br>• **Bind password for Postfix LDAP user.** Automatically set.This is the password used by the postfix user to identify itself to the LDAP server and must be configured on the MTA server to be the same as the password on the LDAP master server.<br>• **Bind password for Amavis LDAP user**. Automatically set. This is the password used by the amavis user to identify itself to the LDAP server and must be configured on the MTA server to be the same as the password on the LDAP server. |
| **5) zimbra-snmp** (optional) | |
| | • **Enable SNMP notifications** — The default is **Yes**.<br>• **SNMP Trap hostname**<br>• **Enable SMTP notification** — The default is **Yes**.<br>• **SMTP Source email address**<br>• **SMTP Destination email address** |
| **6) zimbra-logger** | When installed, it is automatically enabled. Logs from the hosts are sent to the mailbox server where zimbra-logger is installed and the information is used to generate the statistics graphs and for message tracing. |
| **7) zimbra-spell** | (optional) When installed, it is automatically enabled. |

**8) Default Class of Service Configuration:**

This menu section lists major new features for the ZCS release and whether the feature is enabled or not. When you change the feature setting during ZCS installation, you change the default COS settings Having this control, lets you decide when to introduce new features to your users.

| | |
|---|---|
| Enable default backup schedule | For Network Edition only, sets the schedule for Backup session to run as a full backup every Sunday at 1 a.m. and as incremental on the other days at 1 a.m. |
| Collapse menu | Allows you to expand or collapse the menu. |
| r) Start servers after configuration | When the installation and configuration is complete, if this is set to **Yes**, the Zimbra server is automatically started. |
| s) Save config to file | At any time during the installation, you can save the configuration to file. |
| x) Expand menu | Expand menus to see the underlying options |
| q) Quit | Quit can be used at any time to quit the installation. |

## *1.9 Installing Zimbra Software*

Open an SSH session to the Zimbra server and follow the steps below.

1. Log in as **`root`** to the Zimbra server and cd to the directory where the Zimbra Collaboration Suite archive tar file is saved **`(cd /var/<tmp>)`**. Type the following commands:
   - **`tar xzvf [zcsfullfilename.tgz]`**, to unpack the file
   - **`cd [zcsfullfilename]`** to change to the correct directory.
   - **`./install.sh`**, to begin the installation

   The **`install.sh`** script reviews the installation software to verify that the Zimbra packages are available.

```
[root@infodev]# tar xzvf zcs.tgz
zcs-NETWORK-5.0.11_GA_2639.RHEL4.20081020025800/
zcs-NETWORK-5.0.11_GA_2639.RHEL4.20081020025800/packages/
zcs-NETWORK-5.0.11_GA_2639.RHEL4.20081020025800/packages/zimbra-
apache-5.0.11_GA_2639.RHEL4-20081020025800.i386.rpm
.
.
zcs-NETWORK-5.0.11_GA_2639.RHEL4.20081020025800/util/addUser.sh
[root@infodev]# cd zcs-NETWORK-5.0.11_GA_2639.RHEL4.20081020025800/
[root@infodev zcs-NETWORK-5.0.11_GA_2639.RHEL4.20081020025800]#
./install.sh

Operations logged to /tmp/install.log.14405
Checking for existing installation...
    zimbra-ldap...NOT FOUND
    zimbra-logger...NOT FOUND
    zimbra-mta...NOT FOUND
    zimbra-snmp...NOT FOUND
    zimbra-store...NOT FOUND
    zimbra-apache...NOT FOUND
    zimbra-spell...NOT FOUND
    zimbra-proxy...NOT FOUND
    zimbra-archiving...NOT FOUND
    zimbra-convertd...NOT FOUND
    zimbra-cluster...NOT FOUND
    zimbra-core...NOT FOUND
```

***Screenshots in this guide are examples of the Zimbra installation script. The actual script may be different.***

2. The installation process checks to see if Sendmail, Postfix, and MySQL software are running. If any of these applications are running, you are asked to disable them. Disabling MySQL is optional but highly recommended. Sendmail and Postfix must be disabled for the Zimbra Collaboration Suite to start correctly.

3. The Zimbra software agreement is displayed and includes a link to the license terms for the Zimbra Collaboration Suite. Please read the agreement and press **Enter** to continue.

```
PLEASE READ THIS AGREEMENT CAREFULLY BEFORE USING THE SOFTWARE.
ZIMBRA, INC. ("ZIMBRA") WILL ONLY LICENSE THIS SOFTWARE TO YOU IF YOU
FIRST ACCEPT THE TERMS OF THIS AGREEMENT. BY DOWNLOADING OR
INSTALLING
THE SOFTWARE, OR USING THE PRODUCT, YOU ARE CONSENTING TO BE BOUND BY
THIS AGREEMENT. IF YOU DO NOT AGREE TO ALL OF THE TERMS OF THIS
AGREEMENT, THEN DO NOT DOWNLOAD, INSTALL OR USE THE PRODUCT.

License Terms for the Zimbra Collaboration Suite:
http://www.zimbra.com/license/zimbra_network_eval_license.pdf

Press Return to continue

Checking for prerequisites...
     FOUND: NPTL
     FOUND: sudo-1.6.7p5-30.1.3
     FOUND: libidn-0.5.6-1
     FOUND: fetchmail-6.2.5-6.0.1
     FOUND: gmp-4.1.4-3
     FOUND: compat-libstdc++-296-2.96-132.7.2
     FOUND: compat-libstdc++-33-3.2.3-47.3
     FOUND: libtool-libs-1.5.6-4
     FOUND: /usr/lib/libstdc++.so.5
Checking for suggested prerequisites...
    FOUND: perl-5.8.5
Prerequisite check complete.

Checking for installable packages
```

4. Next, the installer checks to see that the prerequisite software is installed. If the prerequisite software packages are not installed, the install process stops. You must fix the problem and start the installation over. See Other Dependencies in System Requirements for Zimbra Collaboration Suite 5.0

5. Select the services to be installed on this server. To install Zimbra Collaboration Suite on a single server, enter **Y** for the ldap, logger, mta, snmp, store, and spell packages. If you use IMAP/POP Proxy, enter **Y** for the Zimbra proxy package.

   **Note:** *For the cross mailbox search feature, install the Zimbra Archive package. To use the archiving and discovery feature, contact Zimbra sales.*

6. Type **Y** and press **Enter** to modify the system. The selected packages are installed on the server.

```
Select the packages to install

Install zimbra-ldap [Y] Y
Install zimbra-logger [Y] Y
Install zimbra-mta [Y] Y
Install zimbra-snmp [Y] Y
Install zimbra-store [Y] Y
Install zimbra-apache {Y}Y
Install zimbra-spell [Y] Y
Install zimbra-proxy [N] N
Install zimbra-archiving [N] N
Install zimbra-convertd [N] N

Checking required space for zimbra-core
checking space for zimbra-store

Installing:
    zimbra-core
    zimbra-ldap
    zimbra-logger
    zimbra-mta
    zimbra-snmp
    zimbra-store
    zimbra-apache
    zimbra-spell

The system will be modified.  Continue? [N] Y
```

**Note:** *Before the configuration starts, the installer checks to see if the hostname is resolvable via DNS. If there is an error, the installer asks if you would like to change the hostname. We recommend that the domain name have an MX record configured in DNS.*

7. At this point, the Main menu displays the default entries for the Zimbra component you are installing. To expand the menu to see the configuration values, type **X** and press **Enter**. The main menu expands to display configuration details for the package being installed. Values that require further configuration are marked with asterisks (********) to their left

```
Main menu

1) Common Configuration:
     +Hostname:                              mailhost.example.com
     +Ldap master host:                      mailhost.example.com
     +Ldap port:                             389
     +Ldap Admin password:                   set
     +Require secure interprocess communications:yes
     +TimeZone:                              (GMT-08.00) Pacific Time (US &
Canada)

2) zimbra-ldap:                              Enabled
     +Create Domain:                         yes
     +Domain to create:                      mailhost.example.com
     +Ldap Root password:                    set
     +Ldap Replication password:             set
     +Ldap Postfix password:                 set
     +Ldap Amavis password:                  set

3) zimbra-store:                             Enabled
     +Create Admin User:                     yes
     +Admin user to create:                  admin@mailhost.example.com
     +Admin Password                         set
     +Enable automated spam training:        yes
     +Spam training user:               spam.rstn2dbcr@mailhost.example.com
     +Non-spam(Ham) training user:      ham.bvjx1nyw@mailhost.example.com
     +Global Documents Account:             wiki@mailhost.example.com
     +SMTP host:                             mailhost.example.com
     +Web server HTTP port:                  80
     +Web server HTTPS port:                 443
     +Web server mode:                       http
     +IMAP server port:                      143
     +IMAP server SSL port:                  993
     +POP server port:                       110
     +POP server SSL port:                   995
     +Use spell check server:                yes
     +Spell server URL:         http://mailhost.example.com:7780/aspell.php
   ** +License filename:                      UNSET

4) zimbra-mta:                               Enabled
5) zimbra-snmp:                              Enabled
6) zimbra-logger:                            Enabled
7) zimbra-spell:                             Enabled
8) Default Class of Service Configuration:
9) Enable default backup schedule:           yes
r) Start servers after configuration         yes
s) Save config to file
x) Expand menu
q) Quit
```

To navigate the Main menu, select the menu item to change. You can modify any of the defaults. See **Table 2, "Main Menu Options" (section 1.8)**, for a description of the Main menu.

For a quick installation, accepting all the defaults, you only need to do the following:

8. If your time zone is not Pacific time, enter 1 to select **Main menu 1, Common Configuration** and then enter **5** for **TimeZone**. Set the correct time zone.

9. Enter **3** to select **zimbra-store** from the main menu.

```
Store configuration

   1) Status:                                  Enabled
   2) Create Admin User:                       yes
   3) Admin user to create:                    admin@mailhost.example.com
** 4) Admin Password                           UNSET
   5) Enable automated spam training:          yes
   6) Spam training user:                      spam@mailhost.example.com
   7) Non-spam(Ham) training user:             ham@mailhost.example.com
   8) Global Documents Account:                wiki@mailhost.example.com
   9) SMTP host:                               mailhost.example.com
  10) Web server HTTP port:                    80
  11) Web server HTTPS port:                   443
  12) Web server mode:                         http
  13) IMAP server port:                        143
  14) IMAP server SSL port:                    993
  15) POP server port:                         110
  16) POP server SSL port:                     995
  17) Use spell check server:                  yes
  18) Spell server URL:       http://mailhost.example.com:7780/aspell.php
**19) License filename:                        UNSET

Select, or 'r' for previous menu [r]
```

10. Select the following from the store configuration menu:

- Type **4** and type the admin password. The password must be six or more characters. Press **Enter**.
- Type **19** and type the directory and file name for the Zimbra license. For example, if you saved to the tmp directory, you would type **`/tmp/ZCSLicense.xml`**. If you do not have the license, you cannot proceed. See **"Zimbra License Requirements for ZCS Network Edition" (section 1.7)**.

11. Type **r** to return to the Main menu.

12. If you want to change the default Class of Service settings for the new features that are listed in this section, type **8 Default Class of Service Configuration**. Then type the number for the feature to be enabled or disabled. Changes you make here are reflected in the default COS configuration.

```
*** CONFIGURATION COMPLETE - press 'a' to apply
Select from menu, or press 'a' to apply config (? - help) a
Save configuration data to a file? [Yes] y
Save config in file: [/opt/zimbra/config.20644]
Saving config in /opt/zimbra/config.20644...done.
The system will be modified - continue? [No] y

Setting zimbraFeatureIMEnabled=FALSE...done.
Setting zimbraFeatureTasksEnabled=TRUE...done.
.
.
.

Installing common zimlets...
        com_zimbra_bulkprovision...done.
        com_zimbra_date...done.
        com_zimbra_email...done.
        com_zimbra_cert_manager...done.
        com_zimbra_url...done.
        com_zimbra_local...done.
        com_zimbra_ymemoticons...done.
        com_zimbra_phone...done.
.
.
.
Moving /tmp/zmsetup.10222008-134611.log to /opt/zimbra/log

Configuration complete - press return to exit
```

13. If no other defaults need to be changed, type **a** to apply the configuration changes. Press **Enter**.

14. When **Save Configuration data to file appears**, type **Yes** and press **Enter**.

15. The next request asks where to save the files. To accept the default, press **Enter**. To save the files to another directory, enter the directory and then press **Enter**.

16. When **The system will be modified - continue?** appears, type **Yes** and press **Enter**.

    The server is modified. Installing all the components and configuring the server can take several minutes. Components that are installed include spam training and documents (wiki) accounts, time zone preferences, backup schedules, licenses, as well as common zimlets

17. When **Configuration complete - press return to exit** displays, press **Enter**.

## 1.9.1 Verify Zimbra Server Operation

When **`Configuration complete!`** appears, the installation is finished and the server has been started.

To verify that the server is running:

1. Type **`su - zimbra`**.
2. Type **`zmcontrol status`**. The services status information is displayed. All services should be running.

```
[zimbra@example ~]$ zmcontrol status
Host example.com
        antispam                Running
        antivirus               Running
        ldap                    Running
        logger                  Running
        mailbox                 Running
        mta                     Running
        snmp                    Running
        spell                   Running
        stats                   Running
[zimbra@example ~]$
```

**Note:** *If services are not running, type* **`zmcontrol start`**.

See the **Zimbra Administration Guide, Appendix A: Command-Line Utilities** for more **`zmcontrol`** commands.

The installation is complete and the servers are started. You can start adding accounts.

## 1.9.2 Installing Zimbra Proxy package

The open source nginx proxy is bundled as part of the zimbra-proxy package, and this package can be installed on ZCS servers, or on their own independent servers. When the zimbra-proxy package is installed, the proxy feature is enabled.

The Zimbra Proxy package includes the following:

- **Nginx**. A high performance IMAP/POP3 proxy server which handles all incoming POP/IMAP requests.
- **Memcached**. A high performance, distributed memory object caching system. Route information is cached for further use in order to increase performance.
- **Zimbra Proxy Route Lookup Handler**. This is a servlet located on the ZCS mailbox server. This servlet handles queries for the user account route information (the server and port number where the user account resides).

# 1.10 Provisioning Accounts

Once the mailbox server is running, open your browser, enter the administration console URL and log on to the console to provision email accounts. The administration console URL is entered as:

https://[mailhost.example.com]:7071/zimbraAdmin

**Note:** *To go to the administration console, you must type **https**, even if you configured the Web server mode as **HTTP**.*

The first time you log on, a certificate authority (CA) alert may be displayed. Click **Accept this certificate permanently** to accept the certificate and be able connect to the Zimbra administration console. Then click **OK**.

Enter the admin user name and password configured during the installation process. Enter the name as admin@mailhost.example.com**.**

### To provision accounts:

1. From the administration console Navigation pane, click **Accounts**.

   **Note:** *Four accounts are listed: admin account, two spam training accounts, and a global Documents account. These accounts do not need any additional configuration.*

2. Click **New**. The first page of the **New Account Wizard** opens.
3. Enter the account name to be used as the email address and the last name. This the only required information to create an account.
4. You can click **Finish** at this point, and the account is configured with the default COS and global features.

   To configure aliases, forwarding addresses, and specific features for this account, proceed through the dialog before you click **Finish**.

When the accounts are provisioned, you can send and receive emails.

## 1.10.1 Importing Content from User Mailboxes

Zimbra developed different applications to facilitate moving a user's email messages, calendars, and contacts from their old email servers to their accounts on the Zimbra server. When the user's files are imported, the folder hierarchy is maintained. Use one of the ZCS utilities to move user mail to ZCS to guarantee that all information is imported correctly.

The following applications can be accessed from the administration console Download page, and instruction guides are available from the Help Desk page or from the Zimbra Website, Documents page.

- **ZCS Migration Wizard for Exchange.** Format is an **.exe** file. You can migrate users from Microsoft® Exchange server email accounts to Zimbra server accounts.

- **ZCS Migration Wizard for Lotus® Domino®**. Format is an **`.exe`** file. You can migrate users from Lotus Domino server email accounts to Zimbra server accounts.
- **Zimbra Collaboration Suite Import Wizard for Outlook®.** Format is an **`.exe`** file. Users download the Import Wizard to their computers and run the executable file to import their Outlook **`.pst`** files to the Zimbra server. Before users run this utility, Zimbra recommends that they run the Outlook Inbox Repair tool, **`scanpst.exe`**, on their **`.pst`** files, to clean up any errors in their file. For more information about this tool, go to http://support.microsoft.com/kb/287497 .

## 1.10.2 Administrator's Account

Initial administrative tasks when you log on for the first time may include setting up the admin mailbox to include features, aliases, and forwarding addresses needed for the administrator's working environment.

Two aliases for the admin account are created during install:

- **Postmaster**. The postmaster address is displayed in emails that are automatically generated from Postfix when messages cannot be sent**.** If users reply to this address, the message is forwarded to the admin mailbox.
- **Root**. This address is where notification messages from the operating system are sent.

If you didn't change the default during installation, the anti-virus notification is sent directly to the admin account.

# *1.11 Uninstalling Zimbra Collaboration Suite*

To uninstall servers, run the **`install`** script **`-u`**, delete the zcs directory, and remove the **`zcs.tgz`** file on the servers.

1. **`cd`** to the original install directory for the zcs files.
2. Type **`./install.sh -u`**.
3. When **Completely remove existing installation?** is displayed, type **`Yes.`**

   The Zimbra servers are stopped, the existing packages, the webapp directories, and the **`/opt/zimbra`** directory are removed.
4. Type **`rm -rf [zcsfullfilename]`** to delete the ZCS directory.
5. Delete the **`zcs.tgz`** file.

## 1.12 Additional Information

To learn more about the Zimbra Collaboration Suite, read the Administrator's Guide and Help. The Zimbra guides and release notes in .pdf format can be found in the **`opt/zimbra/docs`** directory and is also available from the administration console Help button and from the Zimbra Website.

- **Administrator's Guide**. This guide describes product architecture, server functionality, administration tasks, configuration options, and backup and restore procedures. The guide is available in pdf format from the administrator's console, and in HTML format on the Zimbra Website.
- **Administrator Help**. The administrator Help provides detailed instructions about how to add and maintain your servers, domains, and user accounts from the admin console.

## 1.13 Support and Contact Information

Visit **www.zimbra.com** to join the community and to be a part of building the best open source messaging solution. We appreciate your feedback and suggestions.

- Contact sales@zimbra.com to purchase the Zimbra Collaboration Suite.
- Network Edition customers can contact support at support@zimbra.com.
- Explore the Zimbra Forums for answers to installation or configuration problems.
- Join the Zimbra Community Forums, to participate and learn more about the Zimbra Collaboration Suite.
- Send an email to feedback@zimbra.com to let us know what you like about the product and what you would like to see in the product. Or, if you prefer, post your ideas to the Zimbra Forums.

If you encounter problems with this software, visit www.zimbra.com and submit a bug report. Make sure you provide enough detail so that the bug can be easily duplicated.

# 2. Zimbra™ Collaboration Multi-Server Installation Network Edition

## *2.1 Introduction*

Information in this guide is intended for persons responsible for installing the Zimbra Collaboration Suite. This guide will help you plan and perform all installation procedures necessary to deploy a fully functioning email system based on Zimbra's messaging technology.

This guide covers the installation of Zimbra Collaboration Suite Network Edition 5.0.

### 2.1.1 Audience

This installation guide assumes you have a thorough understanding of system administration concepts and tasks and are familiar with email communication standards, security concepts, directory services, and database management.

### 2.1.2 Zimbra Collaboration Suite License

A Zimbra license is required in order to create accounts in the Network Edition Zimbra Collaboration Suite servers. You cannot install ZCS without a license.

The license types available are

- **Trial**. You can obtain the trial license from the Zimbra license portal for free. The trail license allows you to create up to 50 users. It expires in 60 days.
- **Regular**. You must purchase the Zimbra Regular license. This license is valid for a specific Zimbra Collaboration Suite system and is encrypted with the number of Zimbra accounts (seats) you have purchased, the effective date and expiration date of the regular license.

If do not have a license, go to Zimbra's website to obtain a license from the Network Downloads area.

## 2.1.3 For More Information

Zimbra documentation, including a readme text file, the administration guide, and other Zimbra guides are copied to the servers during the installation. The major documentation types are listed below. You can access all the documents on the Zimbra website, www.zimbra.com and from the administration console, Help Desk page.

- **Administrator's Guide**. This guide describes product architecture, server functionality, administration tasks, configuration options, and backup and restore procedures.
- **Administrator Help**. The administrator Help provides instructions about how to add and maintain your servers, domains, and user accounts from the admin console.
- **Web Client Help**. The Web Client Help provides instructions about how to use the Zimbra Web Client features.
- **Migration Wizard Guides**. These guide describes how to migrate users that are on Microsoft Exchange or Lotus Domino systems to the Zimbra Collaboration Suite.
- **Clustering Guide**. This guide describes how to setup clustering for a single server or multiple servers.

## 2.1.4 Support and Contact Information

Visit **www.zimbra.com** to join the community and to be a part of building the best open source messaging solution. We appreciate your feedback and suggestions.

- Contact sales@zimbra.com to purchase Zimbra Collaboration Suite
- Network Edition customers can contact support at support@zimbra.com
- Explore the Zimbra Forums for answers to installation or configuration problems
- Join the Zimbra Community Forum, to participate and learn more about the Zimbra Collaboration Suite.
- Send an email to feedback@zimbra.com to let us know what you like about the product and what you would like to see in the product. If you prefer, post your ideas to the Zimbra Forum.

If you encounter problems with this software, visit Zimbra.com and submit a bug report. Make sure you provide enough detail so that the bug can be easily duplicated.

# 2.2 Preparing Your Server Environment

In order to successfully install and run Zimbra Collaboration Suite, ensure your system meets the requirements described in this section.

- System requirements
- Operating system modifications
- DNS configuration requirements

**Important:** *Do not manually create the user 'zimbra' before running the ZCS installation. The installation automatically creates this user and sets up its environment.*

## 2.2.1 System Requirements

For the ZCS system requirements see **System Requirements for Zimbra Collaboration Suite 5.0 (Appendix A)**.

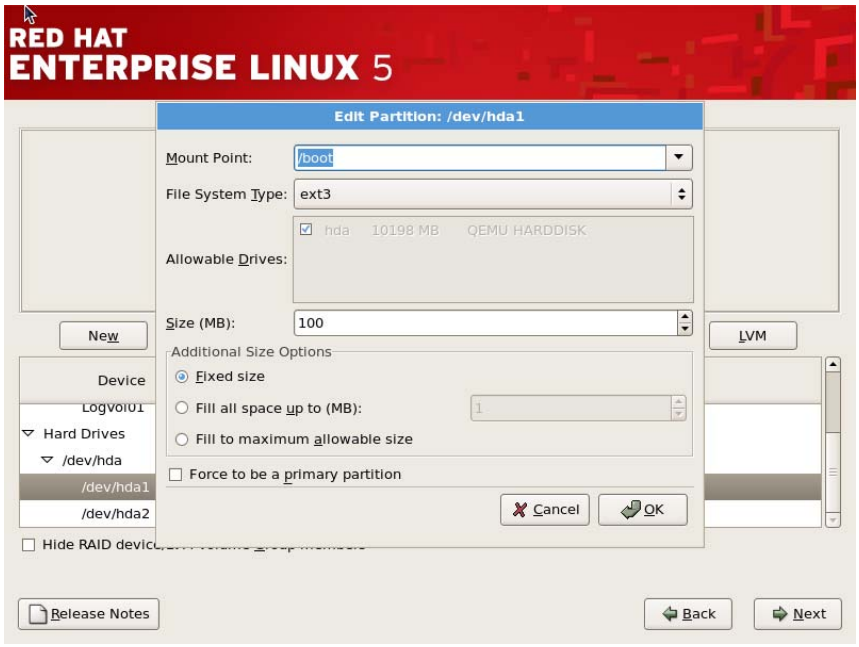
**Important:** *The operating system that you use should be at the current patch level before you install ZCS. See the latest release notes for a list of the operating systems patches that have been tested with ZCS.*

## 2.2.2 Installation Modifications for Red Hat Enterprise Linux

The Zimbra Collaboration Suite runs on the Red Hat Enterprise Linux 4 or 5 operating system. When you install the Red Hat software for the Zimbra Collaboration Suite, accept the default setup answers to install the minimum configuration, except for the following steps that must be modified.

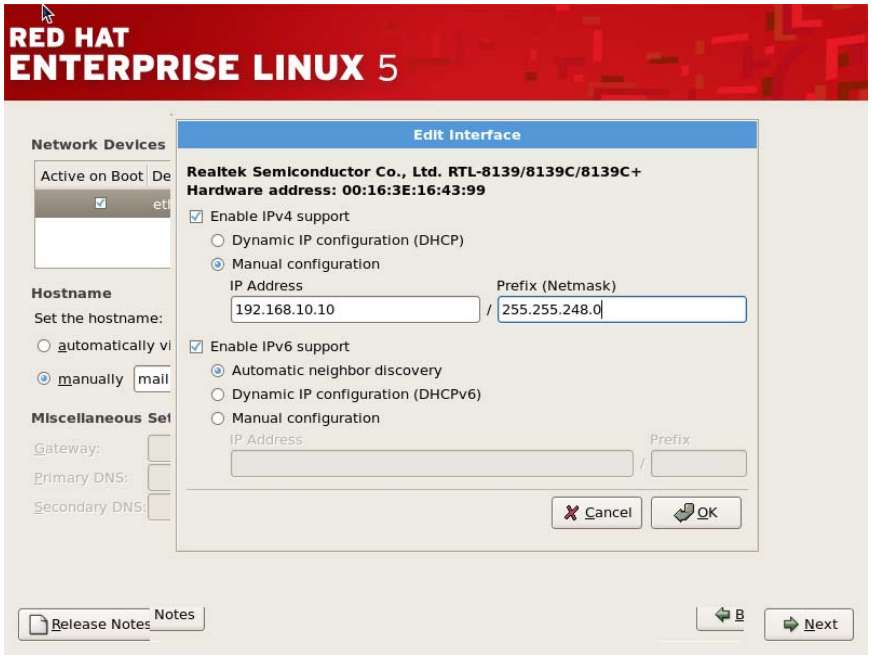
Refer to the Red Hat Enterprise Linux installation guide for detailed documentation about installing their software.

- **Disk Partitioning Setup**. Check **Manually partition with DiskDruid**. The disk partition should be set up as follows:
  - The **Mount Point/RAID Volume** size for the **`/boot`** partition should be 100 MB.
  - The **Swap** partition should be set to twice the size of the RAM on your machine.
  - The **Root** partition (`/`) should be set with the remaining disk space size.

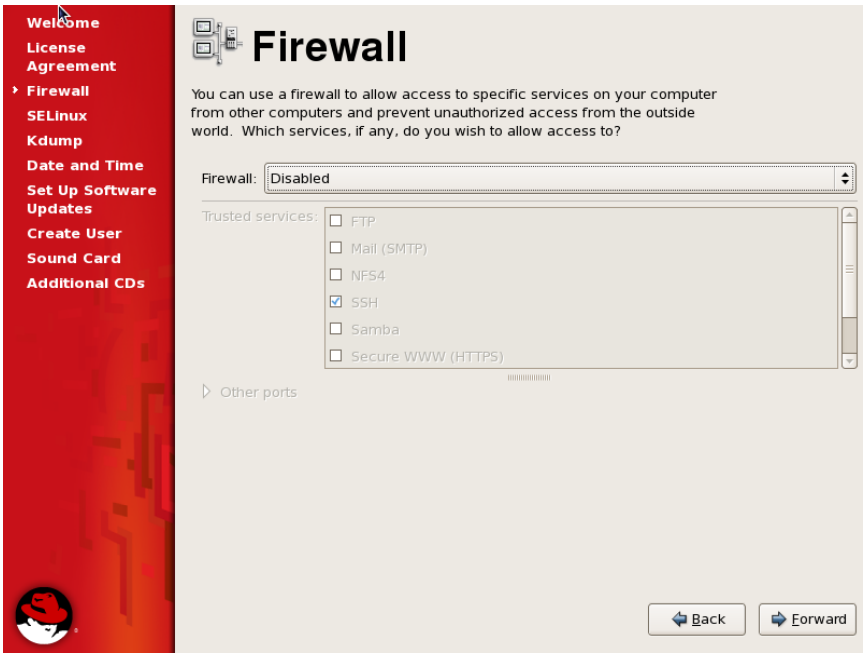




- **Network Configuration>Network Devices>Hostname** should be configured manually with the hostname [*mait.company.com]* of the Zimbra server.


- Enter the **Gateway** and **Primary** DNS addresses.
- In the **Edit Interface** pop-up screen, check **Activate on Boot**. Enter the **IP Address** and **Netmask** of the device. This allows the interface to start when you boot.




- **Firewall Configuration** should be set to **No firewall**, and the **Security Enhanced Linux** (SELinux) should be disabled.





**Important:** *The following should also be considered before you install the Zimbra Collaboration Suite.*

- You must disable Sendmail in order to run the Zimbra Collaboration Suite. Disable the Sendmail service with these commands, **`chkconfig sendmail off, service sendmail stop.`**
- A fully qualified domain name is required. Make sure that the FQDN entry in **`/etc/hosts`** appear before the hostnames. If this is missing, the creation of the Zimbra certificate fails. The FQDN entry should look like this example.

```
127.0.0.1               localhost.localdomain localhost
your.ip.address         FQDN yourhostname
```

```
127.0.0.1               localhost.localdomain localhost
your.ip.address         FQDN yourhostname
```

## 2.2.3 DNS Configuration Requirement

In order to send and receive email, the Zimbra MTA must be configured in DNS with both A and MX records. For sending mail, the MTA uses DNS to resolve hostnames and email-routing information. To receive mail the MX record must be configured correctly to route the message to the mail server.

During the installation process ZCS checks to see if you have an MX record correctly configured. If it is not, an error is displayed suggesting that the domain name have an MX record configured in DNS.

You must configure a relay host if you do not enable DNS. After ZCS is installed, go to the **Global Settings>MTA** tab on the administration console and uncheck **Enable DNS lookups**. Enter the relay MTA address to use for external delivery.

**Note:** *Even if a relay host is configured, an MX record is still required if the ZCS server is going to receive email from the Internet.*

# 2.3 Planning for the Installation

This chapter describes the components that are installed and reviews the configuration options that can be made when you install the Zimbra Collaboration Suite.

## 2.3.1 Zimbra Packages

Zimbra architecture includes open-source integrations using industry standard protocols. The third-party software has been tested and configured to work with the Zimbra software.

The following describes the Zimbra packages that are installed.

- **Zimbra Core**. This package includes the libraries, utilities, monitoring tools, and basic configuration files. Zimbra Core is automatically installed on each server.
- **Zimbra LDAP**. User authentication is provided through OpenLDAP® software. Each account on the Zimbra server has a unique mailbox ID that is the primary point of reference to identify the account. The OpenLDAP schema has been customized for the Zimbra Collaboration Suite. The Zimbra LDAP server must be configured before the other servers. You can set up LDAP replication, configuring a master LDAP server and replica LDAP servers.
- **Zimbra MTA**. Postfix is the open source mail transfer agent (MTA) that receives email via SMTP and routes each message to the appropriate Zimbra mailbox server using Local Mail Transfer Protocol (LMTP). The Zimbra MTA also includes the anti-virus and anti-spam components.
- **Zimbra Store**. The Zimbra store includes the components for the mailbox server, including Jetty, which is the servlet container the Zimbra software runs within. The Zimbra mailbox server includes the following components:
  - **Data store**. The data store is a MySQL® database.
  - **Message store**. The message store is where all email messages and file attachments reside.
  - **Index store.** Index and search technology is provided through Lucene. Index files are maintained for each mailbox.
- **Zimbra SNMP**. Installing the Zimbra SNMP package is optional. If you choose to install zimbra-SNMP for monitoring, this package should be installed on every Zimbra server.
- **Zimbra Logger**. Installing the Zimbra Logger package is optional. If you install the Logger package, it must be installed on the first mailbox server. The Zimbra logger installs tools for syslog aggregation, reporting, and message tracing. If you do not install Logger, you cannot use the message trace feature. In addition, the server statistics are not captured, and the server statistics section of the administration console will not display.

  **Note:** *The Logger package must be installed at the same time as the mailbox server.*
- **Zimbra Spell**. Installing the Zimbra Spell package is optional. Aspell is the open source spell checker used on the Zimbra Web Client.

- **Zimbra Apache**. This package is installed automatically when Zimbra Spell or Zimbra Convertd (See Note) is installed.

**Note:** *The zimbra-convertd package is a beta package for Network Edition customers that implements the ZCS 6.0 method of using convertd. For more information, contact Zimbra support.*

- **Zimbra Proxy**. Zimbra proxy can be configured as a POP and IMAP proxy server and for reverse proxy HTTP requests. This package can be installed on the mailbox server, MTA server or on its own independent server. When the zimbra-proxy package is installed, the proxy feature is enabled. Installing the Zimbra Proxy is optional.
- **Zimbra Archiving**. The Zimbra Archiving and Discovery feature is an optional feature for ZCS Network Edition. Archiving and Discovery offers the ability to store and search all messages that were delivered to or sent by ZCS. This package includes the cross mailbox search function which can be used for both live and archive mailbox searches. Note: Using Archiving and Discovery can trigger additional mailbox license usage. To find out more about Zimbra Archiving and Discovery, contact Zimbra sales.

The Zimbra server configuration is menu driven. The installation menu displays the default configuration values. The menu displays the logical host name and email domain name [example.com] as configured for the computer.

## 2.3.2 Configuration Examples

Zimbra Collaboration Suite can be easily scaled for any size of email environment, from very small businesses with fewer than 25 email accounts to large businesses with thousands of email accounts. The following table shows examples of different configuration options.

**Table 1 Zimbra Collaboration Suite Configuration Options**

| Small | Medium | Large | Very Large |
|---|---|---|---|
| All ZCS components installed on one server<br>See the Zimbra Installation Quick Start for installation instructions | • Zimbra LDAP and Zimbra message store on one server<br>• Zimbra MTA on a separate server.<br>• Possibly include additional Zimbra MTA servers | • Zimbra LDAP on one server<br>• Multiple Zimbra mailbox servers<br>• Multiple Zimbra MTA servers | • Zimbra Master LDAP server<br>• Replicas LDAP servers<br>• Multiple Zimbra mailbox servers<br>• Multiple Zimbra MTA servers |

## 2.3.3 Downloading the Zimbra Software

For the latest Zimbra software download, go to www.zimbra.com. Save the Zimbra Collaboration Suite download file to the computer from which you will install the software.

When the Zimbra Collaboration Suite is installed, the following Zimbra applications are saved to the Zimbra server:

- **Zimbra Collaboration Suite Connector for Outlook**® .msi file. This is a MAPI service provider that is installed on users' computers, and users can use Microsoft® Outlook® 2003 or 2007 to access the ZCS server and synchronize data to/from Outlook for offline use.
- **Zimbra Connector for Apple iSync** plug-in. When this is installed on users' Macs, they can use Apple Address Book, iCal, and Microsoft Entourage® to access ZCS.
- **Zimbra Collaboration Suite Migration Wizard for Exchange** .exe file to migrate Microsoft® Exchange server email accounts to the Zimbra server.
- **Zimbra Collaboration Suite Migration Wizard for Domino** .exe file to migrate Lotus Domino server email accounts to the Zimbra server.
- **Zimbra Collaboration Suite Import Wizard for Outlook** .exe file to allow users to import their Outlook .pst files to the Zimbra server.

Supporting documentation can be found on the administration console Help Desk page or at www.zimbra.com.

## 2.3.4 Zimbra License

A Zimbra license is required in order to create accounts. See **"Zimbra Collaboration Suite License" (section 2.1.2)** for a description of the license types.

The regular license can only be installed on the ZCS system for which it is purchased. Only one Zimbra license is required for your Zimbra Collaboration Suite environment. This license is installed on the Zimbra mail server.

When you renew or change the Zimbra license, you must update the Zimbra server with the new license information. Use the **Update License Wizard** from the administration console's Global Settings to upload and install an updated license, or you can update the license using the **zmlicense** CLI command. See the **Zimbra Administrator's Guide, Appendix A: Command-Line Utilities.**

Current license information, including the number of accounts purchased, the number of accounts used, and the expiration date, can be viewed from the Global Settings on the administration console.

## 2.3.5 Menu-Driven Configuration

The menu driven installation displays the components and their existing default values. During the installation process you can modify the default values. Only those menu options associated with the package being installed are displayed.

### 2.3.5.1 Common configuration options

The packages installed in common configuration include libraries, utilities, monitoring tools, and basic configuration files under Zimbra Core. These options are configured on all servers.

The table below describes the Main menu common configuration options.

**Table 2 Main Menu Options**

| Server Configured | Main Menu | Description |
|---|---|---|
| **Common Configuration** | | |
| All | Hostname | The host name configured in the operating system installation |
| All | LDAP master host | The LDAP master host name. This LDAP host name is configured on every server |
| All | LDAP port | The default port is 389 |
| All | LDAP Admin password | Password for the Zimbra admin user and is configured on every server |
| All | TimeZone | Select the time zone to apply to the default COS. The time zone that should be entered is the time zone that the majority of users in the COS will be located. The default time zone is PST (Pacific Time) |

| | | |
|---|---|---|
| All | Require secure interprocess communications | By default startTLS is **YES**. When startTLS is enabled there is a secure communication between amavis and postfix and the LDAP server<br>If this is disabled, ZCS disables the use of startTLS with the LDAP server |
| All servers, if installed | zimbra-snmp<br>Installing SNMP is optional, but if installed it must be on all servers. | You can modify the following options<br>• **Enable SNMP notifications**. The default is **No**. If you enter yes, you must enter the SNMP Trap hostname.<br>• **SNMP Trap hostname**<br>• **Enable SMTP notification** — The default is **No**.<br>• **SMTP Source email address** — If you enter yes for SMTP notification, you must enter the SMTP source email address and **SMTP Destination email address** — destination email address. |
| | r) Start servers after configuration | When the installation and configuration is complete, if this is set to Yes, the Zimbra server is automatically started. |
| | s) Save config to file | At any time during the installation, you can save the configuration to a file. |
| | q) Quit | Quit can be used at any time to quit the installation. |

### 2.3.5.2 Zimbra LDAP server configuration options

These options are configured on the Zimbra LDAP server.
The table below describes the Main menu LDAP server configuration options

**Table 3 Zimbra LDAP Server Menu Options**

| | | |
|---|---|---|
| **Zimbra LDAP Server** | zimbra-ldap | Configuration includes the following:<br>• **Status** - Enabled. For replica LDAP servers the status is changed to Disabled.<br>• **Create Domain —** Yes. You can create one domain during installation and additional domains can be created from the administration console.<br>• **Domain to create** — The default domain is the fully qualified hostname of the server. If you created a valid mail domain on your DNS server, enter it here.<br>• **LDAP Root password**. This password is automatically generated and is used for internal LDAP operations.<br>• **LDAP Replication password**. This password is automatically generated and is the password used by the LDAP replication server and must be the same password on the LDAP master server and on the replica server. |

| | | |
|---|---|---|
| **Zimbra LDAP Server** | zimbra-ldap | • **LDAP Postfix password**. This password is automatically generated and is the password used by the postfix user to identify itself to the LDAP server and must be the same password on the LDAP master server and on the MTA server.<br>• **LDAP Amavis password**.This password is automatically generated and is the password used by the amavis user to identify itself to the LDAP server and must be the same password on the LDAP master server and on the MTA server.<br>• **LDAP Nginx password**. This password is automatically generated and is used by the Nginx user to identify itself to the LDAP server and must be the same password on the LDAP master server and on the MTA server. This option is displayed only if the zimbra-proxy package is installed. |

### 2.3.5.3 Zimbra Mailbox server configuration options

These options are configured on the Zimbra Mailbox server.

**Table 4 Zimbra Mailbox Server Menu Options**

| | | |
|---|---|---|
| **Zimbra Mailbox Server** | zimbra-store | Configuration includes the following.<br>• **Create Admin User** - The administrator account is created during installation. This account is the first account provisioned on the Zimbra server and allows you to log on to the administration console.<br>• **Admin user to create** - The default is admin@[mailhost.example.com].<br>• **Admin Password** - You must set the admin account password. The password is case sensitive and must be a minimum of six characters. The administrator name, mail address, and password are required to log in to the administration console.<br>• By default, the automated spam training filter is enabled and two mail accounts are created.<br>*1 -Spam Training User* to receive mail notification about mail that was not marked as junk, but should be.<br>*2 -Non-spam (HAM) training user* to receive mail notification about mail that was marked as junk, but should not have been.<br>These addresses are automatically configured to work with the spam training filter. The accounts created have a randomly selected name. To recognize what the account is used for you may want to change this name.<br>The spam training filter is automatically added to the cron table and runs daily. |

| | | |
|---|---|---|
| Zimbra Mailbox Server | zimbra-store (continued) | • Global Document Account — This account is automatically created when ZCS is installed. The account holds the templates and the default Documents Notebook. The Documents feature is enabled from the COS or in individual accounts.<br>These default port configurations are shown.<br>• **SMTP host**<br>• **Web server HTTP port**:- 80<br>• **Web server HTTPS port**: - 443<br>• **Web server mode** - Can be HTTP, HTTPS, Mixed, Both or Redirect.<br>**Mixed** mode uses HTTPS for logging in and HTTP for normal session traffic<br>**Both** mode means that an HTTP session stays HTTP, including during the login phase, and an HTTPS session remains HTTPS throughout, including the login phase.<br>**Redirect** mode redirects any users connecting via HTTP to a HTTPS connection.<br>All modes use SSL encryption for back-end administrative traffic.<br>• **IMAP server port**: 143<br>• **IMAP server SSL port**: 993<br>• **POP server port**: 110<br>• **POP server SSL port**: 995<br>• **Use spell checker server**: yes (if installed)<br>• **Spell server URL**: http://<example.com>:7780/aspell.php |

| | | |
|---|---|---|
| | | • **License file name** is unset. The license file must be saved to a director on the server. You enter the file name and location here and the license is installed as part of the ZCS installation. If you do not have the license, you cannot proceed.<br>• **Configure store for use with reverse mail proxy**: FALSE<br>• **Configure store for use with reverse web proxy**: FALSE |
| Zimbra mailbox server | zimbra-logger | The Logger package is installed on the first mail server. If installed, it is automatically enabled. Logs from all the hosts are sent to the mailbox server where the logger package is installed. This data is used to generate the statistics graphs and is used for message tracing, and reporting. |
| Zimbra mailbox server | Default Class of Service Configuration | This menu lists major new features for the ZCS release and whether feature are enabled or not. When you change the feature setting during ZCS installation, you change the default COS settings. |
| Zimbra mailbox server | Enable default backup schedule | Default is yes. Sets the schedule for Backup session to run as a full backup every Sunday at 1 a.m. and as incremental on the other days at 1 a.m. |
| Zimbra mailbox server | zimbra-spell | If installed, it is automatically enabled. When composing messages in the Zimbra Web Client, spell check can be run. |
| Zimbra mailbox server | zimbra-apache | When you install zimbra-spell, zimbra-apache gets installed automatically. |

The table below describes the Zimbra Mailbox server menu options

### 2.3.5.4 Zimbra MTA Server configuration options

Zimbra MTA server configuration involves installation of the Zimbra-MTA package. This also includes anti-virus and anti-spam components.

The table below describes the MTA server menu options

**Table 5 Zimbra MTA Server Menu Options**

| | | |
|---|---|---|
| **Zimbra MTA Server** | zimbra-mta | The following options can be modified.<br>• **MTA Auth host**. This is configured automatically if the MTA authentication server host is on the same server, but must be configured if the authentication server is not on the MTA. The MTA Auth host must be one of the mailbox servers.<br>• **Enable Spamassassin**. Default is enabled.<br>• **Enable ClamAV**. Default is enabled.<br>• **Notification address for AV alerts**. Sets the notification address for AV alerts. You can either accept the default or create a new address. If you create a new address, remember to provision this address from the admin console.<br>**Note:** *If the virus notification address does not exist and your host name is the same as the domain name on the Zimbra server, the virus notifications queue in the Zimbra MTA server and cannot be delivered.*<br>• **Bind password for postfix LDAP user**. This password must be the same as the postfix password configured on the master LDAP server.<br>• **Bind password for amavis LDAP user**. This password must be the same as the amavis password configured on the master LDAP server. |

## 2.3.6 Configuring IMAP and POP Proxy Server

Use of an IMAP/POP proxy server allows routing users of these services to the Zimbra mailbox server on which their mailbox resides. For example, proxying allows users to enter imap.example.com as their IMAP server. The proxy running on imap.example.com inspects their IMAP traffic, does a lookup to determine which backend mailbox server a user's mailbox lives on (mbs1.example.com, for example), and transparently proxies the connection from user's IMAP client to the correct mailbox server.

As of ZCS 5.0, the open source nginx proxy is bundled as part of the zimbra-proxy package, and this package can be installed on mailbox servers, MTA servers, or on their own independent servers. When the zimbra-proxy package is installed, the proxy feature is enabled.

### 2.3.6.1 Zimbra Proxy Components

Zimbra Proxy includes the following:

- **Nginx**. A high performance IMAP/POP3 proxy server which handles all incoming POP/IMAP requests.
- **Memcached**. A high performance, distributed memory object caching system. Route information is cached for further use in order to increase performance.
- **Zimbra Proxy Route Lookup Handler**. This is a servlet located on the ZCS mailbox server. This servlet handles queries for the user account route information (the server and port number where the user account resides).

When the proxy server is configured, the service ports on backend Zimbra mailbox server are changed to alternate ports. The proxy now services the standard ports for these protocols. This change is applied even if the proxy services are run on their own independent hosts, in order to distinguish and avoid confusion between the services.

If you have any other services running on these ports, turn them off.

**Table 6 Zimbra IMAP/POP Proxy Server Port Mapping**

| | Port |
|---|---|
| Standard Ports served by Proxy | |
| IMAP Proxy port | 143 |
| IMAP SSL proxy port | 993 |
| POP proxy port | 110 |
| POP SSL proxy port | 995 |

| Alternate Ports Served by Mailbox Servers | |
|---|---|
| Route Lookup Handler | 7072 |
| IMAP server port | 7143 |
| IMAP SSL server port | 7993 |
| POP server port | 7110 |
| POP SSL server port | 7995 |

When an IMAP or POP3 client logs in through the proxy, the following takes place:

- The proxy analyzes the login sequence
- Extracts the user name of the user trying to login
- Does a HTTP lookup on a mailbox server to find out which server the mailbox of the user attempting to login lives on

This lookup service runs on mailbox servers on port 7072, and this port on mailbox servers should be available from all proxy servers.

Which mailbox servers participate in this lookup is determined by the zimbraReverseProxyLookupTarget server attribute on servers running the mailbox service. By default all mailbox servers participate in this lookup. Lookup is performed round-robin across configured mailbox servers. The result of the login name to mailbox server lookup are cached in memcached (an open source distributed in-memory hashtable). The memcached process is run alongside all IMAP/POP proxy services.

**Note:** *Memcached will be split into its own service in the future.*

## 2.3.7 Configuring ZCS HTTP Proxy (Beta 5.0.6)

In addition to IMAP/POP3 proxying, the Zimra proxy package based on nginx is also able to reverse proxy HTTP requests to the right backend server.

Using an nginx-based reverse proxy for HTTP helps to hide names of backend mailbox servers from end users.

For example, users can always use their web browser to visit the proxy server at http://mail.example.com. The connection from users whose mailbox lives on mbs1. example.com will

be proxied to mbs1.example.com by the proxy running on the mail.example.com server. In addition to the ZCS web interface, clients such as REST and CalDAV clients, Zimbra Connector for Outlook and Zimbra Mobile Sync devices are also supported by the proxy.

HTTP reverse proxy routes requests as follows:

- If the request has an auth token cookie (**ZM_AUTH_TOKEN**), the request is routed to the backend mailbox server of the authenticated user.
- If the requesting URL can be examined to determine the user name, then the request is routed to the backend mailbox server of the user in the URL. REST, Ca lDAV, and Zimbra Mobile Sync are supported through this mechanism.
- If the above methods do not work, the IP hash method is used to load balance the requests across the backend mailbox servers which are able to handle the request or do any necessary internal proxying.

For more information see the **Zimbra Administration Guide, Zimbra Proxy chapter**.

## 2.3.8 Configuring for Virtual Hosting

You can configure multiple virtual hostnames to host more than one domain name on a server. When you create a virtual host, users can log in without have to specify the domain name as part of their user name.

Virtual hosts are configured from the administration console **Domains>Virtual Hosts** tab. The virtual host requires a valid DNS configuration with an A record.

When users log in, they enter the virtual host name in the browser. For example, **https://mail.example.com**. When the Zimbra logon screen displays, users enter only their user name and password. The authentication request searches for a domain with that virtual host name. When the virtual host is found, the authentication is completed against that domain.

## 2.4 Multiple-Server Installation

The multiple-server installation is straight-forward and easy to run. You run the same install script on each server, select the component(s) to install, and use the menu to configure the system.

After the installation is complete, two additional steps should be run as described in “Final Set-Up” (section 2.4.7).

- Fetch the ssh encryption keys
- Enable some logger functionality.

When the server installation is complete, the servers are started, and the status is displayed.

**Important:** *Install the servers in the following order*

1. LDAP server
2. Zimbra mailbox servers
3. Zimbra MTA servers

**Note:** *You can install the Zimbra-proxy server with any of the above servers, or you can install it on its own server.*

**Important:** *Do not manually create the user ‘zimbra’ before running the ZCS installation. The installation automatically creates this user and sets up its environment.*

**Important:** *Before you start, verify that the system clocks are synced on all servers.*

### 2.4.1 Starting the Installation Process

For the latest Zimbra software download, go to www.zimbra.com. Save the Zimbra Collaboration Suite **tar** file to the computer from which you are installing the software.

Step 1 through step 4 below are performed for each server to be installed.

1. Log in as **root** to the Zimbra server and **cd** to the directory where the Zimbra Collaboration Suite archive file is saved **`(cd /var/<tmp>/var)`**. Type the following commands.
    - **`tar xzvf [zcs.tgz]`** to unpack the file
    - **`cd [zcs filename]`** to change to the correct directory. The file name includes the release and build date.
    - **`./install.sh`** to begin the installation.

**Note:** *When installing ZCS, you can also install the Zimbra license file. Copy the file to the mail server and to begin the installation, type* **`./install.sh -l (/path/ZCSLicense.xml)`**

**Note:** *As the installation proceeds, press* **Enter** *to accept the defaults that are shown in brackets* **[ ]** *or enter the appropriate answer for your configuration.*

The screen shots are examples of the Zimbra installation script.

```
[root@mailhost tmp]# tar xzvf zcs.tgz
zcs/
.
.
.
zcs/packages/
zcs/packages/zimbra-spell-5.0.11_GA_1_1469.RHEL4-4116.i386.rpm
zcs/packages/zimbra-apache-5.0.11_GA_1469.RHEL4-4116.i386.rpm
zcs/packages/zimbra-core-5.0.11_GA_1469.RHEL4-4116.i386.rpm
zcs/packages/zimbra-logger-5.0.11_GA_1469.RHEL4-4116.i386.rpm
zcs/packages/zcs-cluster-5.0.11_GA_1469.RHEL4.tgz
zcs/packages/zimbra-cms-5.0.11_GA_1469.RHEL4-4116.i386.rpm
zcs/packages/zimbra-ldap-5.0.11_GA_1469.RHEL4-4116.i386.rpm
zcs/packages/zimbra-proxy-5.0.11_GA_1469.RHEL4-4116.i386.rpm
zcs/packages/zimbra-cluster-5.0.11_GA_1469.RHEL4-4116.i386.rpm
zcs/packages/zimbra-store-5.0.11_GA_1469.RHEL4-4116.i386.rpm
zcs/packages/zimbra-mta-5.0.11_GA_1469.RHEL4-4116.i386.rpm
zcs/packages/zimbra-snmp-5.0.11_GA_1469.RHEL4-4116.i386.rpm
zcs/README.txt
zcs/readme_binary.txt
zcs/docs/
.
.
.
[root@mailhost tmp]# cd zcs-NETWORK-5.0.11_GA_1469.RHEL4.4116
[root@mailhost zcs-NETWORK-5.0.11_GA_1469.RHEL4.4116]# ./install.sh

Operations logged to /tmp/install.log.27584
Checking for existing installation...
    zimbra-ldap...NOT FOUND
    zimbra-logger...NOT FOUND
    zimbra-mta...NOT FOUND
    zimbra-snmp...NOT FOUND
    zimbra-store...NOT FOUND
    zimbra-apache...NOT FOUND
    zimbra-spell...NOT FOUND
    zimbra-proxy...NOT FOUND
    zimbra-archiving...NOT FOUND
    zimbra-convertd...NOT FOUND
    zimbra-cluster...NOT FOUND
    zimbra-core...NOT FOUND
```

2. The installation process checks to see if Sendmail, Postfix, and MySQL software are running. If any application is running, you are asked to disable it. The default is **Yes** to disable the applications.

Disabling MySQL is optional, but highly recommended. Sendmail and Postfix must be disabled for the Zimbra Collaboration Suite to start correctly.

3. The Zimbra software agreement is displayed and includes a link to the license terms for the Zimbra Collaboration Suite. Read the agreement and press **Enter** to continue.

```
PLEASE READ THIS AGREEMENT CAREFULLY BEFORE USING THE SOFTWARE.
ZIMBRA, INC. ("ZIMBRA") WILL ONLY LICENSE THIS SOFTWARE TO YOU IF YOU
FIRST ACCEPT THE TERMS OF THIS AGREEMENT. BY DOWNLOADING OR
INSTALLING THE SOFTWARE, OR USING THE PRODUCT, YOU ARE CONSENTING TO
BE BOUND BY THIS AGREEMENT. IF YOU DO NOT AGREE TO ALL OF THE TERMS
OF THIS AGREEMENT, THEN DO NOT DOWNLOAD, INSTALL OR USE THE PRODUCT.

License Terms for the Zimbra Collaboration Suite:
http://www.zimbra.com/license/index.html

Press Return to continue
```

4. Next, the installer checks to see that the prerequisite software is installed. If NPTL, sudo, libidn, cURL, fetchmail, GMP or compat-libstdc++- are not installed, the install process quits. You must fix the problem and start the installation again.

**Note:** *Before the Main menu is displayed, the installer checks to see if the hostname is resolvable via DNS and if there is an error asks you if would like to change the hostname. The domain name should have an MX record configured in DNS.*

## 2.4.2 Installing Zimbra LDAP Master Server

You must configure the Zimbra Master LDAP server before you can install other Zimbra servers.

1. Follow steps 1 through 4 in **"Starting the Installation Process" (section 2.4.1)** to open an SSH session to the LDAP server, log on to the server as **root**, and unpack the Zimbra software.

2. Type **Y** and press **Enter** to install the **zimbra-ldap** package. The MTA, Store and Logger packages should be marked **N**. In the screen shot example below, the package to be installed is emphasized.

   **Note:** *If you are using SNMP, mark the SNMP package* **Y**.

   **Note:** *If you are installing the zimbra-proxy with your LDAP Master Server, mark the zimbra-proxy package* **Y .**

   **Note:** *Typing* **Y** *to install zimbra-convertd will not make a noticeable difference since installing it does not activate it. For more information about zimbra-convertd, contact Zimbra support.*

```
Select the packages to install

Install zimbra-ldap [Y] Y
Install zimbra-logger [Y] N
Install zimbra-mta [Y] N
Install zimbra-snmp [Y] N
Install zimbra-store [Y] N
Install zimbra-apache [Y] N
Install zimbra-spell [Y] N
Install zimbra-proxy [N] N
Install zimbra-archiving [N] N
Install zimbra-convertd [N] N

Installing:
    zimbra-core
    zimbra-ldap

This system will be modified. Continue [N} Y
```

3. Type **Y**, and press **Enter** to modify the system. The selected packages are installed on the server.

   The Main menu displays the default entries for the Zimbra component you are installing. To expand the menu to see the configuration values type **x** and press **Enter**. The main menu expands to display configuration details for the package being installed. Values that require further configuration are marked with asterisks (*).

   To navigate the Main menu, select the menu item to change. You can modify any of the defaults. See **Table 2, "Main Menu Options" (section 2.3.5.1)** for a description of the Main menu.

```
Main menu

   1) Common Configuration:
   2) zimbra-ldap:                              Enabled
   3) Enable default backup schedule:           yes
   r) Start servers after configuration        yes
   s) Save config to file
   x) Expand menu
   q) Quit

*** CONFIGURATION COMPLETE - press 'a' to apply
Select from menu, or press 'a' to apply config (? - help)
```

   Items with asterisks must be configured.

4. Type **1** to display the Common Configuration submenus. Type **4** to display the automatically generated LDAP admin password. You can change this password. Write down the LDAP password, the LDAP host name and the LDAP port. You must configure this information when you install the MTA server and the mailbox servers.

   LDAP Admin Password _____

   LDAP Host name _____

LDAP Port _____

```
Common Configuration:
    1)Hostname:                          zimbra.example.com
    2)Ldap master host:                  zimbra.example.com
    3)Ldap port:                            389
    4)Ldap Admin password:                  set
    5)Require secure interprocess communications      Yes
    6)TimeZone:              (GMT-08.00) Pacific Time (US & Canada)
```

5. Type **6** to set the correct time zone if your time zone is not Pacific time.
6. Type **r** to return to the Main menu.
7. Type **2** for **zimbra-ldap** to change the zimbra-ldap settings.
   - Type **3, Domain to create,** to change the default domain name to the email domain name.
   - The passwords listed in LDAP configuration are automatically generated. You need these passwords when configuring the MTA and the LDAP replica servers. Write them down. If you want to change the passwords for LDAP root, LDAP replication, LDAP Postfix, LDAP Amavis, and LDAP Nginx, enter the corresponding number 4 through 8 and change the password.

     LDAP Replication password _____

     LDAP Postfix password _____

     LDAP Amavis password _____

     LDAP Nginx password _____

```
Ldap configuration

   1) Status:                                Enabled
   2) Create Domain:                         yes
   3) Domain to create:                      mailhost.example.com
   4) Ldap Root password:                    set
   5) Ldap Replication password:             set
   6) Ldap Postfix password:                 set
   7) Ldap Amavis password:                  set
   8) Ldap Nginx password:                   set

Select, or 'r' for previous menu [r] 3

Create Domain: [ldap.example.com] example.com
```

8. When the LDAP server is configured, return to the main menu and type **a** to apply the configuration changes.

9. When **Save Configuration data to file** appears, type **Yes** and press **Enter**.

10. The next request asks where to save the files. To accept the default, press **Enter**. To save the files to another directory, enter the directory and press **Enter**.

11. When **The system will be modified - continue?** appears, type **y** and press **Enter**.

    The server is modified. Installing all the components and configuring the server can take a few minutes. This includes but is not limited to setting local config values, creating and installing SSL certificates, setting passwords, timezone preferences, and starting the servers, among other processes.

12. When **Configuration complete - press return to exit** displays, press **Enter**.

The installation of the LDAP server is complete.

```
Select, or press 'a' to apply config (? - help) a
Save configuration data to a file? [Yes]
Save config in file: [/opt/zimbra/config.5490]
Saving config in /opt/zimbra/config.5490...done

The system will be modified - continue? [No] y

Operations logged to /tmp/zmsetup.10282008-092627.log
Setting local config values...done
.
.
.
Operations logged to /tmp/zmsetup.log.2843

Configuration complete - press return to exit
```

## 2.4.3 Installing Zimbra Mailbox Server

The zimbra-store package can be installed with the LDAP server, the MTA server, or as a separate mailbox server. You can have more than one mailbox server and new servers can be added any time. The Zimbra license file can be installed on one of the mailbox servers during the installation. If you do not have a license file you can install it from the administration console when the ZCS install is complete. See **"Zimbra License" (section 2.3.4)**.

**Note:** *The zimbra-logger package is installed only on the first Zimbra mailbox server.*

1. Follow steps 1 through 4 in **"Starting the Installation Process" (section 2.4.1)** to log on to the server as **root** and unpack the Zimbra software.

2. Type **Y** and press **Enter** to install the **zimbra-logger** (optional and only on one mailbox server), **zimbra-store**, and **zimbra-spell** (optional) packages. When zimbra-spell is installed, the **zimbra-**

**apache** package also gets installed. In the screen shot example below, the packages to be installed are emphasized.

**Note:** *If you are installing the zimbra-proxy with your Zimbra mailbox server, mark the zimbra-proxy package* **Y**.

```
Install zimbra-ldap [Y] N
Install zimbra-logger [Y] Y
Install zimbra-mta [Y] N
Install zimbra-snmp [Y] N
Install zimbra-store [Y] Y
Install zimbra-apache [Y] Y
Install zimbra-spell [Y] Y
Install zimbra-proxy [N] N
Install zimbra-archiving [N] N
Install zimbra-convertd [N] N


Installing:
  zimbra-core
  zimbra-logger
    zimbra-store
    zimbra-apache
    zimbra-spell

The system will be modified. Continue [N] Y
```

3. Type **Y**, and press **Enter** to modify the system. The selected packages are installed on the server.

   The Main menu displays the default entries for the Zimbra component you are installing. To expand the menu to see the configuration values type **x** and press **Enter**.

   To navigate the Main menu, select the menu item to change. You can modify any of the defaults.

```
Main menu

   1) Common Configuration:
        +Hostname:                              mailhost.example.com
******* +Ldap master host:                      UNSET
        +Ldap port:                             389
******* +Ldap Admin password:                   UNSET
        +Require secure interprocess communications: yes
        +TimeZone:                              (GMT-08.00) Pacific Time
(US & Canada)

   2) zimbra-store:                             Enabled
        +Create Admin User:                     yes
        +Admin user to create:                 admin@mailhost.example.com
******* +Admin Password                         UNSET
        +Enable automated spam training:        yes
        +Spam training user:           spam.cc_v05j4@mailhost.example.com
        +Non-spam(Ham) training user:    ham.msoyzx@mailhost.example.com
        +Global Documents Account:              wiki@mailhost.example.com
        +SMTP host:                             mailhost.example.com
        +Web server HTTP port:                  80
        +Web server HTTPS port:                 443
        +Web server mode:                       http
        +IMAP server port:                      143
        +IMAP server SSL port:                  993
        +POP server port:                       110
        +POP server SSL port:                   995
        +Use spell check server:                yes
        +Spell server URL:
http://mailhost.example.com:7780/aspell.php
******* +License filename:                       UNSET
        +Configure store for use with reverse mail proxy: FALSE
        +Configure store for use with reverse web proxy: FALSE
   3) zimbra-snmp:                              Enabled
   4) zimbra-logger:                            Enabled
   5) zimbra-spell:                             Enabled
   6) Default Class of Service Configuration:
        +Enable Instant Messaging Feature:      Disabled
        +Enable Briefcases Feature:             Disabled
        +Enable Tasks Feature:                  Disabled
        +Enable Notebook Feature:               Enabled
   7) Enable default backup schedule:           yes
   c) Collapse menu
   r) Start servers after configuration         yes
   s) Save config to file
   q) Quit
```

4. Type **1** and press **Enter** to go to the Common Configuration Menu. The Hostname is displayed. You must set the LDAP host and password as configured on the LDAP server.
   - Type **2**, press **Enter**, and type the LDAP host name.
   - Type **4**, press **Enter**, and type the LDAP password.

The server immediately contacts the LDAP server. If it cannot contact the server, you cannot proceed.

Type **r** to return to the Main menu.

5. Type **3** to go to the zimbra-store menu.
   - Type **4** and set the password for the administrator account. The password is case sensitive and must be a minimum of six characters. The admin account is provisioned on the Zimbra server and you log on to the administration console with this password.
   - Type the corresponding number to set the SMTP host.
   - Type the corresponding number if you want to change the default web server mode. The communication protocol options are HTTP, HTTPS, mixed, both or redirect.

     **Mixed** mode uses HTTPS for logging in and HTTP for normal session traffic

     **Both** mode means that an HTTP session stays HTTP, including during the login phase, and an HTTPS session remains HTTPS throughout, including the login phase.

     **Redirect** mode redirects any users connecting via HTTP to a HTTPS connection.

     All modes use SSL encryption for back-end administrative traffic.
   - Mixed mode uses HTTPS for logging in and HTTP for normal session traffic. Redirect mode redirects users connecting via HTTP to a HTTPS connection. All modes use SSL encryption for back-end administrative traffic.
   - If you are setting up IMAP/POP proxy servers, type the corresponding number to enable the servers. When you enable these, IMAP and POP server port numbers and proxy port numbers are automatically changed. See the **“Planning for the Installation” (section 2.3), Configuring IMAP and POP Proxy Server**.
   - Type the corresponding number to install the Zimbra license file. Type the directory and file name for the Zimbra license. For example, if you saved the license file to the tmp directory, you would type **`/tmp/ZCSLicense.xml`**. You cannot proceed without a license.
   - The two menu options for configuring store for use with reverse mail and web proxy appear under this menu only when installing zimbra-store without zimbra-proxy. The value can be set to TRUE or FALSE with FALSE being the default. Setting these values to TRUE causes different store-specific properties related to proxy to be set for mail and web proxy.

```
Address unconfigured (**) items or correct ldap configuration (? - help)
5
Store configuration
1) Status:                              Enabled
   2) Create Admin User:                yes
   3) Admin user to create:             admin@mailhost.example.com
** 4) Admin Password                    UNSET
   5) Enable automated spam training:   yes
   6) Spam training user:               spam@mailhost.example.com
   7) Non-spam(Ham) training user:      ham@mailhost.example.com
   8) Global Documents Account:         wiki@mailhost.example.com
   9) SMTP host:                        mailhost.example.com
  10) Web server HTTP port:             80
  11) Web server HTTPS port:            443
  12) Web server mode:                  http
  13) Enable POP/IMAP proxy:            no
  14) IMAP server port:                 143
  15) IMAP server SSL port:             993
  16) POP server port:                  110
  17) POP server SSL port:              995
  18) Use spell check server:           yes
  19) Spell server URL:       http://mailhost.example.com:7780/aspell.php
**20) License filename:                 UNSET
  21) Configure store for use with reverse mail proxy: FALSE
  22) Configure store for use with reverse web proxy: FALSE


Select, or 'r' for previous menu [r] 4
```

6. Type **r** to return to the Main menu.
7. If you want to change the default Class of Service configuration for the listed new features, type the number (6) for the **Default Class of Service Configuration**. Then type the corresponding number for the feature to be enabled or disabled. Changes you make here are reflected in the default COS configuration.
8. When the mailbox server is configured, return to the Main menu and type **a** to apply the configuration changes. Press **Enter** to save the configuration data.
9. When **Save Configuration data to a file** appears, press **Enter**.
10. The next request asks where to save the files. To accept the default, press **Enter**. To save the files to another directory, enter the directory and then press **Enter**.
11. When **The system will be modified - continue?** appears, type **y** and press **Enter**.

    The server is modified. Installing all the components and configuring the server can take a few minutes. This includes installing SSL certificates, setting passwords, setting ports, installing skins and zimlets, setting time zone preferences, and starting the servers, among other processes.
12. When **Configuration complete - press return to exit** displays, press **Enter**.

The installation of the mailbox server is complete.

```
Select, or press 'a' to apply config (? - help) a
Save configuration data? [Yes]
Save config in file: [/opt/zimbra/config.32288]
Saving config in /opt/zimbra/config.32288...Done

The system will be modified - continue? [No] y

Operations logged to /tmp/zmsetup.10282008-110412.log
Setting local config zimbra_server_hostname to [mailhost.example.com]
.
.
.
Operations logged to /tmp/zmsetup.log.32288

Configuration complete - press return to exit
```

## 2.4.4 Installing Zimbra MTA on a Server

When zimbra-mta is installed, the LDAP host name and the Zimbra LDAP password must be known to the MTA server. If not, the MTA cannot contact the LDAP server and is not able to complete the installation.

1. Follow steps 1 through 4 in **"Starting the Installation Process" (section 2.4.1)** to open a SSH session to the MTA server, log on to the server as **root**, and unpack the Zimbra software.

2. Type **Y** and press **Enter** to install the **zimbra-mta** package. The other packages should be marked **N.** In the screen shot example below, the package to be installed is emphasized.

   **Note:** *If you are installing zimbra-proxy with your Zimbra MTA Server, mark the zimbra-proxy package* **Y***.*

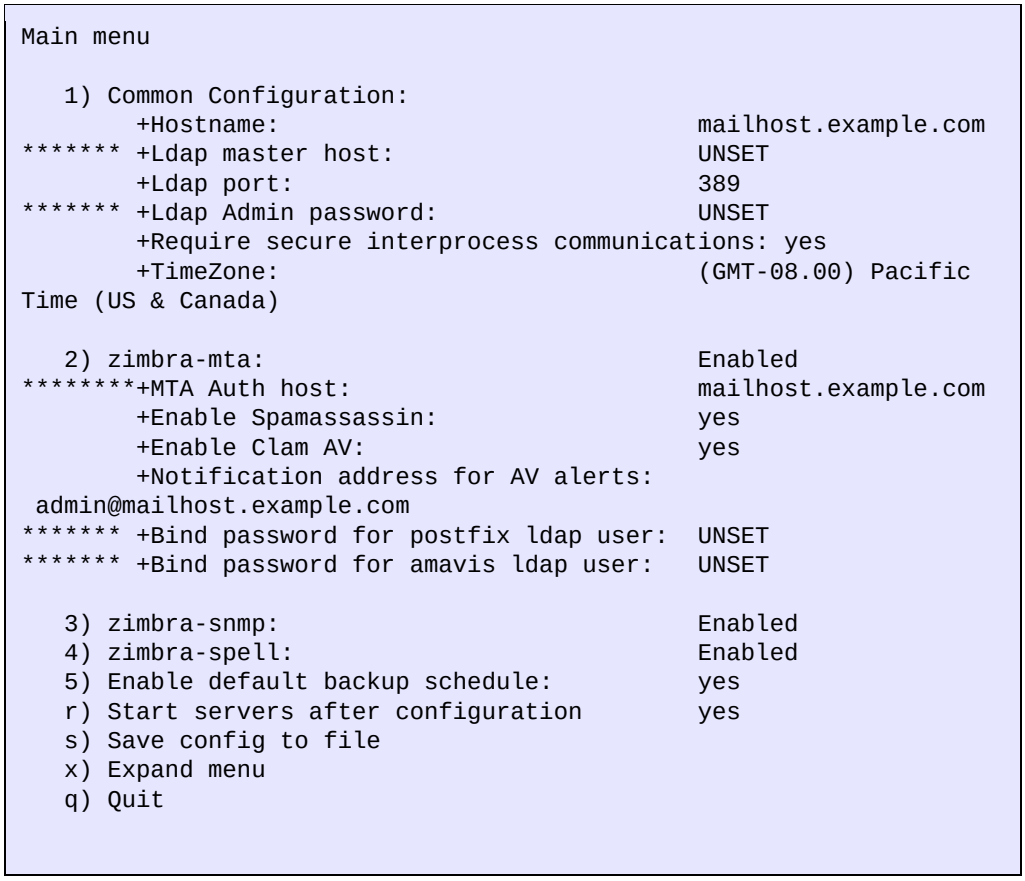
   **Note:** *If you installed the SNMP package on the LDAP server, type* **Y** *to install it on the MTA server too.*

```
Select the packages to install

Install zimbra-ldap [Y] N
Install zimbra-logger [Y] N
Install zimbra-mta [Y] Y
Install zimbra-snmp [Y] N
Install zimbra-store [Y] N
Install zimbra-apache [Y] N
Install zimbra-spell [Y] N
Install zimbra-archiving [N] N
Install zimbra-convertd [N] N
Install zimbra-proxy [N] N

Installing:
    zimbra-mta

This system will be modified. Continue [N} Y
Configuration section
```

3. Type **Y**, and press **Enter** to modify the system. The selected packages are installed on the server.

   At this point the Main menu displays the default entries for the Zimbra component you are installing. To expand the menu to see all the configuration values type **x** and press **Enter**.

   To navigate the Main menu, select the menu item to change. You can modify any of the defaults.




4. The Main menu displays. The Hostname is displayed. You must set the LDAP host and password configured on the LDAP server. Type **1** to go to the Common Configuration menu.
   - Type **2**, press **Enter** and type the LDAP host name.
   - Type **4**, press **Enter** and type the LDAP password.

   The server immediately contacts the LDAP server. If it cannot contact the server, you cannot proceed.

5. Type **2** to go to the zimbra-mta menu and type **2** to set the MTA Auth host. This is the MTA authentication server host name and is set to one of the Zimbra mailbox server's hostname.

   You can change **5**, AV alerts notification address. The administrator's address is configured by default.

   **Note:** *If you enter a new address, you should configure this address on the administration console.*

6. You must set the same postfix ldap user password and the same amavix ldap user password that is configured on the LDAP master server.
   - Type **6** and enter the postfix password.
   - Type **7** and enter the amavis password.

```
Select, or press 'a' to apply config (? - help) 5

Mta configuration

  1) Status:                                    Enabled
**2) MTA Auth host:                             UNSET
  3) Enable Spamassassin:                       yes
  4) Enable Clam AV:                            yes
  5) Notification address for AV alerts:        admin@mta.example.com
**6) Bind password for postfix ldap user:       UNSET
**7) Bind password for amavis ldap user:        UNSET
```

7. When the MTA server is configured, return to the Main menu and type **a** to apply the configuration changes. Press **Enter** to save the configuration data.
8. When **Save Configuration data to a file** appears, press **Enter**.
9. The next request asks where to save the files. To accept the default, press **Enter**. To save the files to another directory, enter the directory and then press **Enter**.
10. When **The system will be modified - continue?** appears, type **y** and press **Enter**.

    The server is modified. Installing all the components and configuring the server can take a few minutes. This includes installing SSL certificates, setting passwords, setting ports, setting time zone preferences, and starting the servers, among other processes.
11. When **Installation complete - press return to exit** displays, press **Enter**.

The installation of the MTA server is complete.

## 2.4.5 Installing the zimbra-proxy package

Installing the zimbra-proxy package is optional, but recommended for scalable multi-server deployment. It can be installed with any of the Zimbra servers, or on its own server.

**Note:** Memcached is shipped as the caching layer to cache LDAP lookups. Memcache does not have authentication and security features so the servers should have a firewall set up appropriately. The default port is 11211 and is controlled by zimbraMemcacheBindPort conf setting in zimbraserver.

```
Proxy configuration

  1) Status:                                    Enabled
  2) Enable POP/IMAP proxy:                     TRUE
  3) IMAP proxy port:                           143
  4) IMAP SSL proxy port:                       993
  5) POP proxy port:                            110
  6) POP SSL proxy port:                        995
  7) Bind password for Nginx ldap user
     (Only required for GSSAPI auth):          set
  8) Enable HTTP[S] Proxy:                      FALSE
```

## 2.4.6 Installing the zimbra-SNMP package

Installing the zimbra-SNMP package is optional, but if you use SNMP monitoring, this package should be installed on each Zimbra server.

In the Main menu, select zimbra-snmp to make changes to the default values.

The following questions are asked for SNMP configuration.

- Configure whether to be notified by SNMP or SMTP. The default is **No**. If you enter yes, you must enter additional information.
  - For SNMP type the SNMP Trap host name.
  - For SMTP type the SMTP source email address and destination email address.

```
8) zimbra-snmp:                              Enabled
   +Enable SNMP notifications:              yes
   +SNMP Trap hostname:                    mailhost.example.com
   +Enable SMTP notifications:              yes
   +SMTP Source email address:              admin@mailhost.example.com
   +SMTP Destination email address:         admin@mailhost.example.com
```

## 2.4.7 Final Set-Up

After the Zimbra LDAP, mailbox, and MTA servers are configured in a multi-node configuration, the following two functions must be configured:

- In order for remote management and postfix queue management, the ssh keys must be manually populated on each server.
- If logger is installed, set up the syslog configuration files on each server to enable server statistics to display on the administration console, and then enable the logger monitor host. The server statistics includes information about the message count, message volume, and anti-spam and anti-virus activity.
- ZCS ships a default zimbra user with a disabled password. ZCS requires access to this account via ssh public key authentication. On most operating systems this combination is okay, but if you have modified pam rules to disallow any ssh access to disabled accounts then you must define a password for the zimbra UNIX account. This will allow ssh key authentication for checking remote queues. See the **Zimbra wiki article, Mail Queue Monitoring**.

#### Set up the ssh keys.

To populate the ssh keys, on each server, as Zimbra user (**`su - zimbra`**). Type **zmupdateauthkeys** and press **Enter**. The key is updated on **/opt/zimbra/.ssh/authorized_keys**.

**Enabling Server Statistics Display.**

In order for the server statistics to display on the administration console, the syslog configuration files must be modified.

1. On each server, as root, type **`/opt/zimbra/bin/zmsyslogsetup`**. This enables the server to display statistics.
2. On the logger monitor host, you must enable **syslog** to log statistics from remote machines.
   a. Edit the /etc/sysconfig/syslog file, add **`-r`** to the SYSLOGD_OPTIONS setting, **SYSLOGD_options="-r -m 0"**
   b. Stop the syslog daemon. Type **/etc/init.d/syslog stop**.
   c. Start the syslog daemon. Type **/etc/init.d/syslog start**.

## 2.4.8 Verifying Server Configuration

When **Configuration complete - press return to exit** is displayed, the installation is finished and the server has been started. Before going to the next server, you should verify that the server is running.

Use the CLI command, **zmcontrol status**, to verify that each server is running.

1. For each server in the Zimbra Collaboration Suite environment, log on as a Zimbra administrator, from the root.
2. Type **`su - zimbra`**.
3. Type **`zmcontrol status`**. The services status information is displayed. All services should be running.

**Note:** *If services are not started, you can type* **`zmcontrol start`***. See the* ***Zimbra Administrator's Guide, Appendix A: Command-Line Utilities*** *for more zmcontrol commands.*

## 2.4.9 Logging on to the Administration Console

To log on to the administration console, open your browser, type the administration console URL and log on to the console. The administration console URL is entered as **https://[example.com]:7071/zimbraAdmin**.

**Note:** *The administration console address must be typed with "https", even if you configured only "http".*

The first time you log on, a certificate authority (CA) alert may be displayed. Click **Accept this certificate permanently** to accept the certificate and be able connect to the Zimbra administration console. Then click **OK**.

Enter the admin user name and password configured during the installation process. Enter the user name as **admin@[example.com]**

## 2.4.10 Post Installation Tasks

Once the Zimbra Collaboration Suite is installed, if you installed the Zimbra license, you can log on to the administration console and configure additional domains, create Classes of Service, and provision accounts**.** See the **Zimbra Administrator's Guide**.

### 2.4.10.1 Defining Classes of Service

A default Class of Service (COS) is automatically created during the installation of Zimbra software. The COS controls mailbox quotas, message lifetime, password restrictions, attachment blocking and server pools. You can modify the default COS and create new COSs to assign to accounts according to your group management policies.

In an environment with multiple mailbox servers, COS is used to assign the new accounts to a mailbox server. The COS server pool tab lists the mailbox servers in your Zimbra environment. When you configure the COS, select which servers to add to the server pool. Within each pool of servers, a random algorithm assigns new mailboxes to any available server.

To create or modify a COS, from the administration console, click COS. If you have questions, refer to the Help.

### 2.4.10.2 Provisioning Accounts

From the administration console, you can quickly create accounts using the New Account Wizard that steps you through the account information to be completed.

**To provision accounts:**

1. From the admin console navigation pane, click **Accounts**.
2. Click **New** to open page 1 of the **New Account Wizard.**
3. Enter the account name to be used as the email address. The only required information is the account name and last name.
4. You can click **Finish** at this point, and the account will be configured with the default COS and global features.

If you want to configure aliases, forwarding addresses, and specific features for this account, proceed through the dialog.

Accounts are now ready to send and receive mail.

Refer to the administration guide to learn more about provisioning accounts, including how to provision multiple accounts at once.

### 2.4.10.3 Import the Content of Users' Mailboxes

Zimbra's migration and import tools can be used to move users' email messages, calendars, and contacts from their old email servers to their accounts on the Zimbra server. When the user's files are imported, the folder hierarchy is maintained. These tools can be accessed from the administration console Download page and instruction guides are available from the Administration Console Help Desk.

## 2.4.11 Uninstalling Zimbra Collaboration Suite

To uninstall servers, you run the install script -u and then delete the zcs directory and remove the ZCS tgz file on the servers.

1. Change directories to the original install directory for the zcs files.
2. Type **`./install.sh -u`**.
3. When **Completely remove existing installation?** is displayed, type **`Yes.`**

   The Zimbra servers are stopped, the existing packages, the webapp directories, and the /opt/zimbra directory are removed.
4. Delete the zcs directory, type **`rm -rf [zcsfilename]`**.
5. Delete the zcs.tgz file, type **`rm -rf zcs.tgz`**.
6. Additional files may need to be delete. See the **Zimbra Wiki Installation section** on http://wiki.zimbra.com/index.php?title=Main_Page

# 2.5 Configuring LDAP Replication

Setting up LDAP replication lets you distribute Zimbra server queries to specific replica LDAP servers. Only one master LDAP server can be set up. This server is authoritative for user information, server configuration, etc. Replica LDAP servers can be defined to improve performance and to reduce the load on the master server. All updates are made to the master server and these updates are copied to the replica servers.

The Zimbra install program is used to configure a master LDAP server and additional read-only replica LDAP servers. The master LDAP server is installed and configured first, following the normal ZCS installation options. The LDAP replica server installation is modified to point the replica server to the LDAP master host.

When the master LDAP server and the replica LDAP servers are correctly installed, the following is automatically configured:

- SSH keys are set up on each LDAP server
- Trusted authentication between the master LDAP and the LDAP replica servers is set up
- The content of the master LDAP directory is copied to the replica LDAP server. Replica LDAP servers are read-only.
- Zimbra servers are configured to query the replica LDAP server instead of the master LDAP server.

## 2.5.1 Installing Zimbra Master LDAP Server

You must install the master LDAP server before you can install replica LDAP servers. Refer to “Installing Zimbra LDAP Master Server” (section 2.4.2) for master LDAP server installation instructions. When the master LDAP server is installed, continue with the section called, Enable Replication on the Mater.

## 2.5.2 Enable Replication on the Master

On the master LDAP server, as a Zimbra user, type: **/opt/zimbra/libexec/zmldapenablereplica** and press **Enter**. This enables replication on the Master.

## 2.5.3 Installing a Replica LDAP Server

The master LDAP server must be running when you install the replica server. You run the ZCS install program on the replica server to install the LDAP package.

Follow steps 1 through 4 in **“Starting the Installation Process” (section 2.4.1)** to open a SSH session to the LDAP server, log on to the server as root, and unpack the Zimbra software.

1. Type **Y** and press **Enter** to install the **zimbra-ldap** package. In the screenshot below, the package to be installed is emphasized.

```
Select the packages to install
Install zimbra-ldap [Y]
Install zimbra-mta [Y]N
Install zimbra-snmp [Y]N
Install zimbra-store [Y]N
Install zimbra-logger [Y]N
Install zimbra-spell [Y]N

Installing:
    zimbra-core
    zimbra-ldap

This system will be modified. Continue [N} Y
Configuration section
```

2. Type **Y**, and press **Enter** to modify the system. The selected packages are installed.

   The Main menu shows the default entries for the LDAP replica server. To expand the menu type **X** and press **Enter**.

```
Main menu

   1) Common Configuration:
   2) zimbra-ldap:                              Enabled
   3) zimbra-snmp:                              Enabled
   4) Enable default backup schedule:           yes
   r) Start servers after configuration         yes
   s) Save config to file
   x) Expand menu
   q) Quit

*** CONFIGURATION COMPLETE - press 'a' to apply
Select from menu, or press 'a' to apply config (? - help)
```

3. Type **1** to display the Common Configuration submenus. Type **2** to change the **Ldap Master host** name to the name of the Master LDAP host.

4. Type **3**, to change the port to the same port as configured for the Master LDAP server.

5. Type **4** and change the password to the Master LDAP Admin user password. Type **r** to return to the main menu.

6. Type **2** to display the LDAP configuration submenu.

   - Type **2** and change **Create Domain:** to **No**.
   - Type **4** for **LDAP replication password**, enter the same password to match the value on the Master LDAP Admin user password for this local config variable.

**Note:** *All passwords must be set to match the master ldap admin user password.To determine this value on the master LDAP, run*
**zmlocalconfig -s ldap_replication_password**

**Important:** *If you have installed Zimbra MTA on the LDAP server, configure the Amavis and the Postfix passwords. To find these values, run*
**zmlocalconfig -s ldap_amavis_password**
**zmlocalconfig -s ldap_postfix_password**

```
Ldap configuration

   1) Status:                                  Enabled
   2) Create Domain:                           no
   3) Ldap Root password:                      set
   4) Ldap Replication password:               set
   5) Ldap Postfix password:                   set
   6) Ldap Amavis password:                    set
   7) Ldap Nginx password:                     set
```

7. When the LDAP server is configured, type **a** to apply the configuration changes. Press **Enter** to save the configuration data.

```
Select, or press 'a' to apply config (? - help) a
Save configuration data? [Yes]
Save config in file: [/opt/zimbra/config.2843]
Saving config in /opt/zimbra/config.2843...Done
The system will be modified - continue? [No] y
Operations logged to /tmp/zmsetup.log.2843
Setting local config zimbra_server_hostname to [ldap.example.com]
.
Operations logged to /tmp/zmsetup.log.2843

Installation complete - press return to exit
```

8. When **Save Configuration data to a file** appears, press **Enter**.
9. When **The system will be modified - continue?** appears, type **y** and press **Enter**.

   The server is modified. Installing all the components and configuring the server can take a few minutes.

10. When **Installation complete - press return to exit** displays, press **Enter**.

The installation on the replica LDAP server is complete. The content of the master LDAP directory is copied to the replica LDAP server.

### 2.5.3.1 Test the replica

1. Create several user accounts, either from the admin console or on the master LDAP server. The CLI command to create these accounts is

   **`zmprov ca <name@domain.com> <password>`**

   If you do not have a mailbox server setup, you can create domains instead. Use this CLI command to create a domain

   **`zmprov cd <domain name>`**

2. To see if the accounts were correctly copied to the replica LDAP server, on the replica LDAP server, type **`zmprov gaa`**. Type **`zmprov gad`** to check all domains.

   The accounts/domains created on the master LDAP server should display on the replica LDAP server.

In cases where the mailbox server is not setup, you can also use the following command for account creation.

**`zmprov ca <name@domain> <password> zimbraMailTransport <where_to_deliver>`**

> **Note:** *In cases where the LDAP host does not have Zimbra Store installed, type* **`zmprov gaa`** *may not display the accounts correctly. Instead, type* **`zmprov -l gaa`** *to see the accounts created on the master LDAP server.*

## 2.5.4 Configuring Zimbra Servers to use LDAP Replica

To use the replica LDAP server instead of the master LDAP server, you must update the ldap_url value on the Zimbra servers that will query the replica instead of the master. For each server that you want to change:

1. Stop the Zimbra services on the server. Type **`zmcontrol stop`**.

2. Update the ldap_url value. Enter the replica LDAP server URL

   **`zmlocalconfig -e ldap_url="ldap://<replicahost> ldap://<masterhost>"`**

   Enter more than one replica hostnames in the list typed as **`"ldap://<replicahost1> ldap://<replicahost2> ldap://<masterhost>"`**. The hosts are tried in the order listed. The master URL must always be included and is listed last.

**Additional Steps for MTA hosts.**

After updating the ldap_url, rerun **/opt/zimbra/libexe/zmmtainit**.

This rewrites the Postfix configuration with the updated ldap_url.

## 2.5.5 Uninstalling an LDAP replica server

If you do not want to use an LDAP replica server, follow these steps to disable it.

**Note:** *Uninstalling an LDAP server is the same as disabling it on the master LDAP server.*

### 2.5.5.1 Remove LDAP replica from all active servers

1. On each member server, including the replica, verify the **ldap_url** value. Type **`zmlocalconfig [ldap_url]`**

2. Remove the disabled LDAP replica server URL from zmlocalconfig. Do this by modifying the **ldap_url** to only include enabled ZCS LDAP servers. The master LDAP server should always be at the end of the **ldap_url** string value.

```
zmlocalconfig -e ldap_url="ldap://<replica-server-host>
ldap://<master-server-host>"
```

### 2.5.5.2 Disable LDAP on the Replica

To disable LDAP on the replica server,

1. Enter **zmcontrol stop** to stop the Zimbra services on the server.

   The status of the LDAP service changes to **off**. The (+) changes to (-) in front of **zimbraServiceEnabled**.

```
zmprov -1 ms 'zmhostname' -zimbraServiceEnabled ldap
```

2. Enter **zmcontrol start** to start other current Zimbra services on the server,

**Additional steps for MTA host.**
After updating the **ldap_url** with **zmlocalconfig**, rerun **/opt/zimbra/libexec/zmmtainit**. This rewrites the Postfix configuration with the updated **ldap_url**.

### 2.5.5.3 Disable LDAP Replication on the Master server

Follow these steps to disable and remove record of LDAP replication entirely across all nodes.

Edit **/opt/zimbra/conf/slapd.conf** by adding the following comments. Make sure you use the same number of hash marks (#) shown.

1. Change **include /opt/zimbra/conf/master-accesslog.conf**

   to **###include /opt/zimbra/conf/master-accesslog.conf**

2. Change

   **overlay syncprov**
   **syncprov-checkpoint 20 10**
   **syncprov-sessionlog 500**
   **include /opt/zimbra/conf/master-accesslog-overlay.conf**

   to

   **#overlay syncprov**
   **#syncprov-checkpoint 20 10**
   **#syncprov-sessionlog 500**
   **###include /opt/zimbra/conf/master-accesslog-overlay.conf**

3. To restart the master LDAP server, type **ldap stop; ldap start.**

4. To remove the accesslog database that was created on the master for replication, as root, enter
   **cd /opt/zimbra/openldap-data/**
   **\rm -rf accesslog**

# Appendix A: System Requirments for Zimbra Collaboration Suite 5.0

Zimbra Collaboration Suite system requirements for both the Network Edition and the Open Source Edition.

| | **Requirements** |
|---|---|
| Servers | Evaluation and Testing<br>• Intel/AMD 32-bit or 64-bit CPU 1.5 GHz<br>• 1 GB RAM<br>• 5 GB free disk space for software and logs<br>• Temp file space for installs and upgrades*<br>• Additional disk space for mail storage<br><br>Production environments<br>• Intel/AMD CPU 32-bit 2.0 GHZ+. For large deployments (more than 2000 users), 64-bit OS is recommended.<br>• Minimum - 2 GB RAM Recommend - 4 GB<br>• Temp file space for installs and upgrades*<br>• 10 GB free disk space for software and logs (SATA or SCSI for performance, and RAID/Mirroring for redundancy)<br>• Additional disk space for mail storage<br><br>*Temp files space- The zimbra-store requires 5GB for /opt/zimbra, plus additional space for mail storage. The other nodes require 100MB.<br>General Requirements<br>• Firewall Configuration should be set to “No firewall”, and the Security Enhanced Linux (SELinux) should be disabled<br>• RAID-5 is not recommended for installations with more than 100 accounts. |
| Operating System<br>**Network Edition** | • Red Hat® Enterprise Linux® AS 4 and Red Hat® Enterprise Linux® 5. (32-bit, 64-bit) |

| | |
|---|---|
| Operating System<br>Open Source Edition | In addition to supporting the operating systems listed above for the Network Edition, other OS versions are available for the Open Source Edition. Check the Zimbra Open Source Downloads page on www.zimbra.com. |
| Other Dependencies | For Red Hat Enterprise Linux the server must also have the following installed:<br>• **NPTL**. Native POSIX Thread Library<br>• **Sudo**. Superuser, required to delegate admins.<br>• **libidn**. For internationalizing domain names in applications (IDNA)<br>• **cURL**. A command line tool for transferring files with URL syntax<br>• **fetchmail.** A remote-mail retrieval and forwarding utility used for on-demand TCIP/IP links.<br>• **GMP**. GNU Multiple-Precision Library.<br>• **compat-libstdc ++-33**. Compatibility Standard C++ libraries.<br>**NOTE**: The 32-bit version of the compat-libstdc rpm package is required for both 32-bit or 64-bit servers.<br>• **compat-libstdc ++-296** |
| Miscellaneous | • SSH client software to transfer and install the Zimbra Collaboration Suite software.<br>• Valid DNS configured with an A record and MX record<br>• Servers should be configured to run Network Time Protocol (NTP) on a scheduled basis |
| Administrator Computers<br>*These OS configurations have been tested and are known to work. Other configurations may work. | • Windows XP with either Internet Explorer 7.0 and 6.0 SP2 or Firefox 2.0 and 3.0<br>• Macintosh OS X 10.4 with Firefox 2.0 and 3.0 |

| | |
|---|---|
| End User Computers using<br>Zimbra Web Client<br>*These OS configurations have been tested and are known to work. Other configurations may work. | Minimum<br>• Intel/AMD/Power PC CPU 750MHz<br>• 256MB RAM<br><br>Recommended<br>• Intel/AMD/Power PC CPU 1.5GHz<br>• 512MB RAM<br><br>Operating system/ browser combinations<br>• Windows XP with either Internet Explorer 7 and 6.0 SP 2 or Firefox 2.0 and 3.0<br>• Fedora Core 4 with Firefox 2.0 and 3.0<br>• Mac OS X 10.4 with Firefox 2.0 and 3.0 or Safari 3 (Note: Safari 2 is only supported for the Standard Zimbra Web Client.)<br>**Note**: Firefox 3.0 and Safari 3 are supported beginning with 5.0.9 |
| End User Computers Using Other Clients<br>*These OS configurations have been tested and are known to work. Other configurations may work. | Minimum<br>• Intel/AMD/Power PC CPU 750MHz<br>• 256MB RAM<br><br>Recommended<br>• Intel/AMD/Power PC CPU 1.5GHz<br>• 512MB RAM<br><br>Operating system POP/IMAP combinations<br>• Windows XP with either Outlook Express 6, Outlook 2003, (MAPI), Thunderbird<br>• Fedora Core 4 with Thunderbird<br>• Mac OS X 10.4 with Apple Mail<br><br>**Accessibility and Screen Readers**<br>Zimbra recommends that customers requiring use of screen readers for accessibility leverage the use of the Standard Zimbra Web Client (HTML).<br>Zimbra continues to invest in improving the accessibility of this interface. The latest updates can be found at http://bugzilla.zimbra.com/show_bug.cgi?i |

| | |
|---|---|
| | d=28516 |
| Monitor | Display minimum resolution<br>1024 x 768 |
| Internet Connection Speed | 128 kbps or higher |

### Migration Wizard Requirements

**Migration Wizard for Exchange** - Accounts from Microsoft Exchange 2000, 2003, 2007 and 5.5 can be migrated to Zimbra Collaboration Suite.

**Migration Wizard for Lotus Dominos** - Accounts from Lotus Domino 6.0 or later can be migrated to Zimbra Collaboration Suite.

### Import Wizard Requirements

Contents of a .pst file from accounts using Microsoft® Outlook® 2003 and 2007 can be imported to accounts on the Zimbra server.

### Zimbra Mobile for Network Edition only

Zimbra Mobile provides mobile data access to email, calendar, and contacts for users of selected mobile phones.

Zimbra Mobile supports native synchronization with the following devices.

- Treo™ 650 , Treo 700w
- Windows Mobile 5 devices

Zimbra Mobile supports synchronization with the following devices via “Mail for Exchange”.

- Symbian S60/S80 smart devices such as Nokia E Series

Note: Zimbra Connector for BES is in Beta for ZCS 5.0.