



Zimbra™ Collaboration Suite Multi-Server Installation Guide

Release 5.0

**Open Source Edition
December 2007**

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Zimbra Collaboration Suite leverages many great technologies from the open source community: MySQL, OpenLDAP, Postfix, SpamAssassin, and Apache. Zimbra believes that great products come from contributing to and leveraging open source technologies. We are thankful for the great contributions that led to the creation of MySQL, OpenLDAP, Postfix, SpamAssassin, and Apache software.

Zimbra, Inc.
700 First Street
Sunnyvale, California 94089 USA
408.349.3000
www.zimbra.com
ZCS 5.0 12102007

Table of Contents

Chapter 1 Introduction	5
Audience	5
For More Information	5
Support and Contact Information	6
Chapter 2 Preparing Your Server Environment	7
System Requirements	7
Modifying Operating System Configurations	7
Installation Modifications for Red Hat Enterprise Linux	7
Installation Modifications for Fedora	10
Installation Modification for Mac Servers	12
DNS Configuration Requirement	12
Chapter 3 Planning for the Installation	13
Zimbra Packages	13
Configuration Examples	14
Downloading the Zimbra Software	15
Menu-Driven Configuration	15
Configuring IMAP and POP Proxy Server	22
Configuring for Virtual Hosting	24
Load Balancing on ZCS	24
Chapter 4 Multiple-Server Installation	25
Starting the Installation Process	25
Starting the Installation Process on the Mac Server	27
Installing Zimbra LDAP Master Server	28
Installing Zimbra Mailbox Server	31
Installing Zimbra MTA on a Server	34
Installing the Zimbra-proxy package	36
Installing the Zimbra-SNMP package	37
Final Set-Up	37
Verifying Server Configuration	38
Logging on to the Administration Console	38
Post Installation Tasks	39
Defining Classes of Service	39
Provisioning Accounts	39
Import the Content of Users' Mailboxes	40
Uninstalling Zimbra Collaboration Suite	40

Chapter 5	LDAP Replication Installation	41
Installing Zimbra Master LDAP Server		41
Enable Replication on the Master		41
Installing a Replica LDAP Server		42
Test the replica		43
Configuring Zimbra Servers to use LDAP Replica		43
System Requirements for Zimbra Collaboration Suite 5.0		1

Chapter 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

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.

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.

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.

Chapter 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.

System Requirements

For the ZCS system requirements see [System Requirements for Zimbra Collaboration Suite 5.0](#).

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.

Modifying Operating System Configurations

Configuration modifications for two of the most frequently used operating systems, Red Hat Enterprise Linux and Fedora, are described in this guide. The SUSE configuration would be similar to those described for the Red Hat Enterprise Linux. The MAC OS X requires no additional modifications.

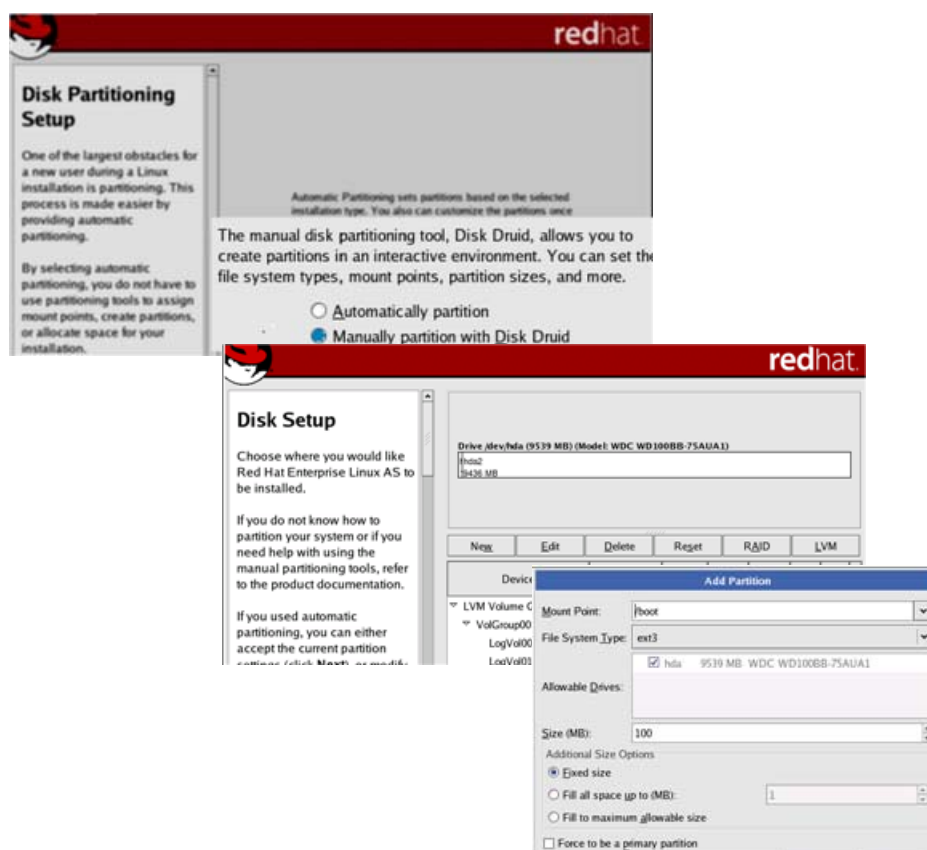
Other operating systems may require similar modifications, use this information as a reference to gauge whether your operating system may need to be modified. Also, search the Zimbra forums.

Installation Modifications for Red Hat Enterprise Linux

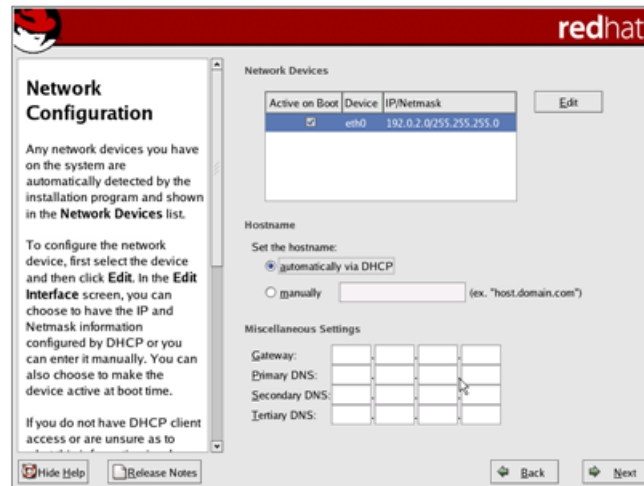
The Zimbra Collaboration Suite runs on the Red Hat Enterprise Linux, AS/AE 4 or 5 operating system. When you install the Red Hat software for the Zimbra Collaboration Suite, accept the default setup answers to install the minimum configuration, except for the following steps that must be modified.

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

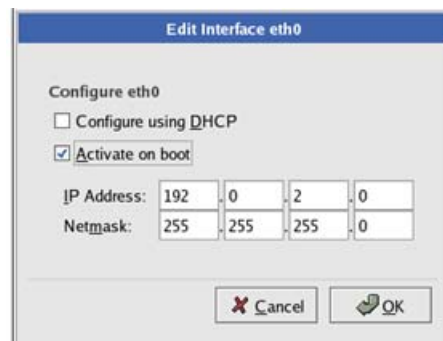
- **Disk Partitioning Setup.** Check **Manually partition with DiskDruid**. The disk partition should be set up as follows:
 - The **Mount Point/RAID Volume** size for the **/boot** partition should be 100 MB.
 - The **Swap** partition should be set to twice the size of the RAM on your machine.
 - The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



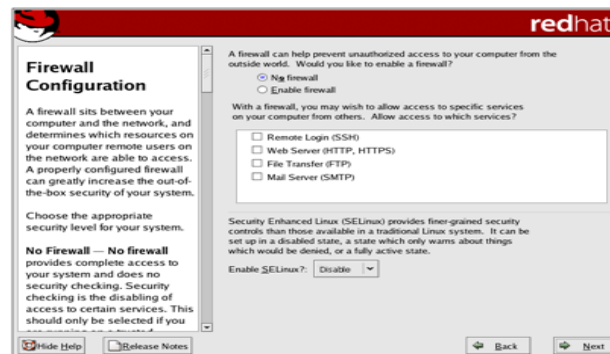
- **Network Configuration>Network Devices>Hostname** should be configured manually with the hostname [*mailhost.example.com*] of the Zimbra server.



- 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.

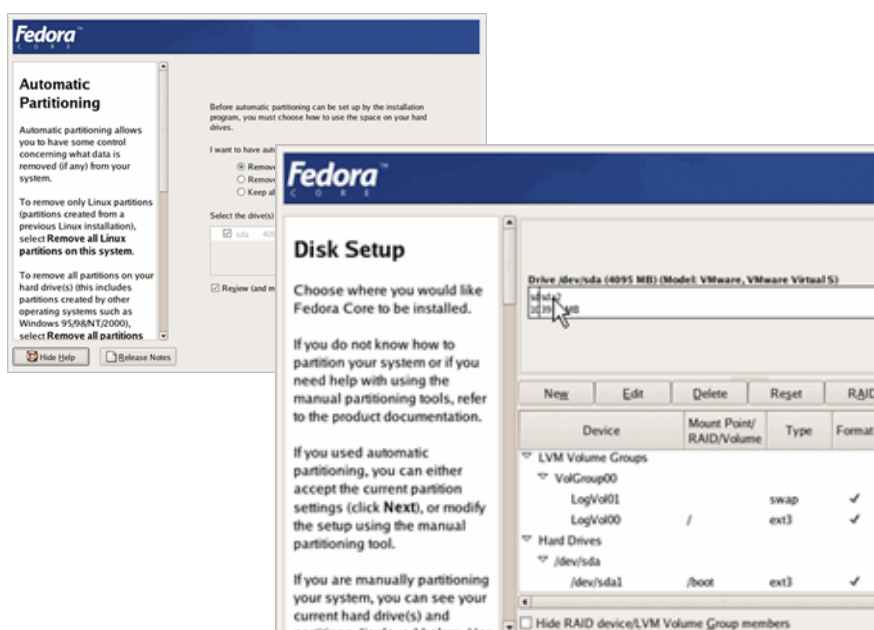
- You must disable Sendmail in order to run the Zimbra Collaboration Suite. Disable the Sendmail service with these commands, `chkconfig sendmail off, service sendmail stop`.
- A fully qualified domain name is required. Make sure that the FQDN entry in `/etc/hosts` appear before the hostnames. If this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

Installation Modifications for Fedora

The Zimbra Collaboration Suite runs on the Fedora, Core 4 operating system. When you install the Fedora software for the Zimbra Collaboration Suite, accept the default setup answers, except for the following steps. Refer to the Fedora installation guide for detailed documentation about installing their software.

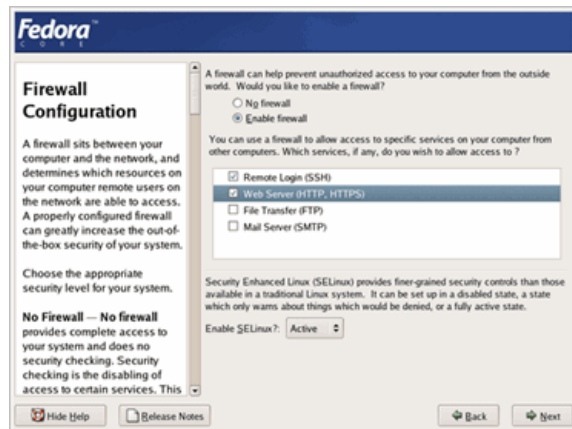
- **Disk Partitioning Setup.** Check **Manually partition with DiskDruid**. The disk partition should be set up as follows:
 - The **Mount Point/RAID Volume** size for the `/boot` partition should be 100 MB.
 - The **Swap** partition should be set to twice the size of the RAM on your machine.
 - The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



- **Network Configuration>Network Devices>Hostname** should be configured manually with the hostname name `[mailhost.example.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 application. The Sendmail command to stop the service is `/etc/init.d/sendmail stop`, to disable, is `chkconfig sendmail off`. The Postfix command to stop the service is `/etc/init.d/postfix stop`, to disable, is `chkconfig postfix stop`.
- Make sure that 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

Installation Modification for Mac Servers

No modifications are required to the MAC server operating system, but Java 1.5 should be set as the default Java.

To set Java 1.5 as the default:

- `su - root`
- `cd /System/Library/Frameworks/JavaVM.Framework/Versions`
- `rm CurrentJDK`
- `ln -s 1.5.0 CurrentJDK`

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.*

Chapter 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.

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. When Zimbra-spell is installed, the Zimbra-apache package is also installed.
- **Zimbra Proxy.** Installing the Zimbra Proxy is optional. Use of an IMAP/POP proxy server allows mail retrieval for a domain to be split across multiple Zimbra servers on a per user basis.

Note: The Zimbra Proxy package can be installed with the Zimbra LDAP, the Zimbra MTA, the Zimbra Mailbox server, or on its own server.

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.

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
<p>All ZCS components installed on one server</p> <p>See the Zimbra Installation Quick Start for installation instructions</p>	<ul style="list-style-type: none"> • Zimbra LDAP and Zimbra message store on one server • Zimbra MTA on a separate server. • Possibly include additional Zimbra MTA servers 	<ul style="list-style-type: none"> • Zimbra LDAP on one server • Multiple Zimbra mailbox servers • Multiple Zimbra MTA servers 	<ul style="list-style-type: none"> • Zimbra Master LDAP server • Replicas LDAP servers • Multiple Zimbra mailbox servers • Multiple Zimbra MTA servers

Downloading the Zimbra Software

For the latest Zimbra software download, go to www.zimbra.com. Save the Zimbra Collaboration Suite download file to the computers 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 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.

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.

The table below describes the Main menu options.

Table 2 Main Menu Options

Server Configuration	Main Menu	Description
Common Configuration		
	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.

Table 2 Main Menu Options

Server Configured	Main Menu	Description
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).

Table 2 Main Menu Options

Server Configured	Main Menu	Description
Zimbra LDAP Server	zimbra-ldap	<p>Configuration includes the following:</p> <ul style="list-style-type: none"> • Status - Enabled. For replica LDAP servers the status is changed to Disabled. • Create Domain — Yes. 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 here. • LDAP Root password. This password is automatically generated and is used for internal LDAP operations. • 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. • 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. • 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.

Table 2 Main Menu Options

Server Configured	Main Menu	Description
Zimbra Mailbox Server	zimbra-store	<p>Configuration includes the following.</p> <ul style="list-style-type: none"> • 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. • By default, the automated spam training filter is enabled and two mail accounts are created. <p>1 -<i>Spam Training User</i> to receive mail notification about mail that was not marked as junk, but should be.</p> <p>2 -<i>Non-spam (HAM) training user</i> to receive mail notification about mail that was marked as junk, but should not have been.</p> <p>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.</p> <p>The spam training filter is automatically added to the cron table and runs daily.</p>

Table 2 Main Menu Options

Server Configured	Main Menu	Description
Zimbra Mailbox Server	zimbra-store (continued)	<ul style="list-style-type: none"> Global Document 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 from the COS or in individual accounts. <p>These default port configurations are shown.</p> <ul style="list-style-type: none"> SMTP host Web server HTTP port: - 80 Web server HTTPS port: - 443 Web server mode - Can be HTTP, HTTPS, mixed, or redirect. Mixed mode uses HTTPS for logging in and HTTP for normal session traffic. Redirect mode redirects any users connecting via HTTP to a HTTPS connection. All modes use SSL encryption for back-end administrative traffic. <p>Note: <i>Selecting both will set it to mixed.</i></p> <ul style="list-style-type: none"> IMAP server port: 143 IMAP server SSL port: 993 POP server port: 110 POP server SSL port: 995 Use spell checker server: yes (if installed) Spell server URL: http://<example.com>:7780/aspell.php

Table 2 Main Menu Options

Server Configured	Main Menu	Description
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	zimbra-spell	If installed, it is automatically enabled. When composing messages in the Zimbra Web Client, spell check can be run.

Table 2 Main Menu Options

Server Configured	Main Menu	Description
Zimbra MTA Server	zimbra-mta	<p>The following options can be modified.</p> <ul style="list-style-type: none"> • 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. • Enable Spamassassin. Default is enabled. • Enable ClamAV. Default is enabled. • 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. <p>Note: <i>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.</i></p> <ul style="list-style-type: none"> • Bind password for postfix LDAP user. This password must be the same as the postfix password configured on the master LDAP server. • Bind password for amavis LDAP user. This password must be the same as the amavis password configured on the master LDAP server.

Table 2 Main Menu Options

Server Configured	Main Menu	Description
All servers, if installed	zimbra-snmpp Installing SNMP is optional, but if installed it must be on all servers.	You can modify the following options <ul style="list-style-type: none"> • Enable SNMP notifications. The default is No. If you enter yes, you must enter the SNMP Trap hostname. • SNMP Trap hostname • Enable SMTP notification — The default is No. • 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.

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.

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.

Table 3 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	
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.*

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.

Load Balancing on ZCS

You can deploy a load balancer for the Zimbra server so that all users can log in using the same address/name instead of having to remember which server their mailbox is on.

For example, you set up a virtual hostname of mail.example.com and configure four mail servers, mail1.example.com to mail4.example.com.

When users log on to mail.example.com, the load balancer directs the user to any one of the mail servers to verify the log on information. After successfully logging on, users are redirected to the actual server their mail is stored on. While they are logged on, all subsequent requests go directly to their server.

How to set up

In order to configure load balancing for ZCS,

1. Each Zimbra servers must have a routeable address/name.
2. You must configure the virtual hostname on the administration console.
3. You must turn on the following localconfig setting on each mail server,
`zmlocalconfig -e zimbra_auth_always_send_refer=true`

Chapter 4 Multiple-Server Installation

The 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, to fetch the ssh encryption keys and 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.*

Starting the Installation Process

For servers other than Mac servers, step 1 through step 4 are performed for each server to be installed.

For Mac servers, see “Starting the Installation Process on the Mac Server” on page 27.

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:

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-5.0.0_1469.RHEL4-4116.i386.rpm
zcs/packages/zimbra-apache-5.0.0_1469.RHEL4-4116.i386.rpm
zcs/packages/zimbra-core-5.0.0_1469.RHEL4-4116.i386.rpm
zcs/packages/zimbra-logger-5.0.0_1469.RHEL4-4116.i386.rpm
zcs/packages/zcs-cluster-5.0.0_1469.RHEL4.tgz
zcs/packages/zimbra-cms-5.0.0_1469.RHEL4-4116.i386.rpm
zcs/packages/zimbra-ldap-5.0.0_1469.RHEL4-4116.i386.rpm
zcs/packages/zimbra-proxy-5.0.0_1469.RHEL4-4116.i386.rpm
zcs/packages/zimbra-cluster-5.0.0_1469.RHEL4-4116.i386.rpm
zcs/packages/zimbra-store-5.0.0_1469.RHEL4-4116.i386.rpm
zcs/packages/zimbra-mta-5.0.0_1469.RHEL4-4116.i386.rpm
zcs/packages/zimbra-snmp-5.0.0_1469.RHEL4-4116.i386.rpm
zcs/README.txt
zcs/readme_binary.txt
zcs/docs/
.
.
.
[root@mailhost tmp]# cd zcs-NETWORK-5.0.0_1469.RHEL4.4116
[root@mailhost zcs-NETWORK-5.0.0_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-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 the link to the license terms for the Zimbra Collaboration Suite. Please read the agreement and to continue, press **Enter**.

```
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 over.

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 if you would like to change the hostname. The domain name should have a MX record configured in DNS.

Starting the Installation Process on the Mac Server

The following steps are performed on each Mac server to be installed.

1. Click on the dmg file to open the file and then click **ZCS.mpkg** to open the Zimbra install package. The Apple installer opens and verifies that the server is ready to install the Zimbra Collaboration Suite. Click **Continue**.
2. Welcome screen appears, click **Continue**.
3. The Zimbra Software License Agreement is displayed. Read the agreement and click **Continue**. A popup screen appears asking that to continue the install you must accept the terms of the license agreement. Click **Agree**.
4. Select the destination volume to install the software. Click **Continue**.
5. The **Easy Install ...** dialog displays. Now you select which services to be installed on this server.

To select which services to install, click **Customize**. Deselect those packages you do not want installed. See "Planning for the Installation" on page 13 for information about the packages. Click **Install** to proceed.

A progress bar shows the Zimbra packages being installed. When **The software was successfully installed** dialog displays, click **Close**.

6. Open the Apple Terminal and log on as **root**. Type **sudo /bin/bash**. Enter your root password, if asked.
7. Type **cd /opt/zimbra/libexec**.
8. Type **ls** to see the packages in the directory.
9. Type **./zmsetup.pl**. This starts the ZCS configuration. A temporary log file is created and the server port configurations are checked for conflicts. 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.
10. If no conflicts are found, 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 (*).
11. To continue, follow the installation instructions for each server type, starting with Step 3.

Installing Zimbra LDAP Master Server

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

1. Follow steps 1 through 4 in **Starting the Installation Process** section to open a SSH session to the LDAP server, log on to the server as root, and unpack the Zimbra software.
2. The **zimbra-ldap** package should be marked **y**. The MTA, Store and Logger packages should be marked **n**.

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**.

```

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-spell [Y] N
Install zimbra-proxy [N] N

Installing:
    zimbra-core
    zimbra-ldap

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.

The Main menu displays showing 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,” on page 15](#) for a description of the Main menu.

```

Main menu

  1) Common Configuration:
  2) zimbra-ldap:                      Enabled
  3) zimbra-snmp:                      Enabled
  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 an 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 _____

```
Main menu

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

5. Type 5 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 will 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 and LDAP Amavis, enter the corresponding number 4 through 7 and change the password.

LDAP Replication password _____

LDAP Postfix password _____

LDAP Amavis 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

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. Press **Enter** to save the configuration data.

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

10. The next request is 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.

12. When **Installation 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? [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
```

Installing Zimbra Mailbox Server

The Zimbra-store 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 at any time.

Note: *The Zimbra logger is installed on first Zimbra mailbox server.*

1. Follow steps 1 through 4 in **Starting the Installation Process** section to log on to the server as root and unpack the Zimbra software.
2. Type **y** to install the **zimbra-store**, **zimbra-logger** (optional and only on one mailbox server), and **zimbra-spell** (optional) packages. When **zimbra-spell** is installed the **zimbra-apache** package is also installed.

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

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

- 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 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
      +Admin User LDAP Bind DN: uid=zimbra,cn=admins,cn=zimbra
      +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.mssoyzzx@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

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

```

- The Hostname is displayed. You must set the LDAP host and password configured on the LDAP server.

- Type **2** and then type the LDAP host name.

- Type **4** and then type the LDAP password.

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

5. Type **7** to configure the admin password, the SMTP host, and to set the web server mode, if your configuration is not http.

- 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 **9** to set the SMTP host.
- Type **10**, if you are changing the default. The communication protocol options are HTTP, HTTPS, mixed or redirect. 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 **13** to enable. When you enable these, IMAP and POP server port numbers and proxy port numbers are automatically changed. See the Planning for the Installation chapter, Configuring IMAP and POP Proxy Server.

```
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

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 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 is 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.
 12. When **Installation 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.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 [mailhost.example.com]
.
Operations logged to /tmp/zmsetup.log.2843

Installation complete - press return to exit
```

Installing Zimbra MTA on a Server

When the Zimbra MTA is being 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 will not be able to complete the installation.

1. Follow steps 1 through 4 in **Starting the Installation Process** section to open a SSH session to the MTA server, log on to the server as root, and unpack the Zimbra software.
2. Enter **y** to install the **zimbra-mta** package. The other packages should be marked **n**.

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

Note: If you installed the SNMP package on the LDAP server, install it here also.

3. 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.

```

Main menu

  1) Common Configuration:
      +Hostname:                                mailhost.example.com
***** +Ldap master host:                      UNSET
      +Ldap port:                              389
***** +Ldap Admin password:                   UNSET
      +Admin User LDAP Bind DN: uid=zimbra,cn=admins,cn=zimbra
      +TimeZone:                               (GMT-08.00) Pacific
Time (US & Canada)

  2) zimbra-mta:                               Enabled
*****+MTA Auth host:                          mailhost.example.com
      +Enable Spamassassin:                    yes
      +Enable Clam AV:                         yes
      +Notification address for AV alerts:
admin@mailhost.example.com
***** +Bind password for postfix ldap user:  UNSET
***** +Bind password for amavis ldap user:   UNSET

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

```

4. The Main menu displays. The Hostname is displayed. You must set the LDAP host and password configured on the LDAP server. Type 1 -Common Configuration and select

- Type **2** and then type the LDAP host name.
- Type **4** and then type the LDAP password.

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

5. Type **5** and then 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 will need to 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 is 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.
11. When **Installation complete - press return to exit** displays, press **Enter**.

The installation of the MTA server is complete.

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.

Proxy configuration

1) Status:	Enabled
2) IMAP proxy port:	143
3) IMAP SSL proxy port:	993
4) POP proxy port:	110
5) POP SSL proxy port:	995

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 the 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

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.

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

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 CLI command appendix in the Administration Guide for more **zmcontrol** commands.

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 to 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]**

Post Installation Tasks

Once the Zimbra Collaboration Suite is installed, 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.

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.

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**, page 1 of the **New Account Wizard** opens.
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.

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.

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.

Note: For Mac, type `cd /;/opt/zimbra/libexec/installer/install-mac.sh - u`.

Chapter 5 LDAP Replication Installation

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.

Installing Zimbra Master LDAP Server

You must install the master LDAP server before you can install replica LDAP servers. Refer to “Starting the Installation Process on the Mac Server” on page 27 and to “Installing Zimbra Master LDAP Server” on page 41 for master LDAP server installation instructions. When the master LDAP server is installed, continue with the section called, Enable Replication on the Master.

Enable Replication on the Master

On the master LDAP server type: `zmldapenablereplica` and press **Enter**. This enables replication on the Master.

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” on page 25 to open a SSH session to the LDAP server, log on to the server as root, and unpack the Zimbra software.

1. The **zimbra-ldap** package should be marked **y**.

```
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
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 server password.
6. Type **2** to display the LDAP configuration submenu. type **2** and change **Create Domain:** to **No**.
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.

Test the replica

1. Create several user accounts, either from the admin console or on the master LDAP server. The CLI command is **zmprov ca <name@domain.com> <password>**
2. To see if the accounts were correctly copied to the replica LDAP server, on the replica LDAP server, type **zmprov gaa**. The accounts created on the master LDAP server should display on the replica LDAP server.

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

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, **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`.

System Requirements for Zimbra Collaboration Suite 5.0

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

	Requirements
Servers	<p>Evaluation and Testing</p> <ul style="list-style-type: none">• Intel/AMD 32-bit or 64-bit CPU 1.5 GHz• 1 GB RAM• 5 GB free disk space for software and logs• Temp file space for installs and upgrades*• Additional disk space for mail storage <p>Production environments</p> <ul style="list-style-type: none">• Intel/AMD CPU 32-bit 2.0 GHz+. For large deployments (more than 2000 users), 64-bit OS is recommended.• Minimum - 2 GB RAM Recommend - 4 GB• Temp file space for installs and upgrades*• 10 GB free disk space for software and logs (SATA or SCSI for performance, and RAID/Mirroring for redundancy)• Additional disk space for mail storage <p>*Temp files space- The zimbra-store requires 5GB for /opt/zimbra, plus additional space for mail storage. The other nodes require 100MB.</p> <p>General Requirements</p> <ul style="list-style-type: none">• Firewall Configuration should be set to "No firewall", and the Security Enhanced Linux (SELinux) should be disabled• RAID-5 is not recommended for installations with more than 100 accounts.

Mac Server	<p>Evaluation and Testing</p> <ul style="list-style-type: none">• Intel Core Solo, or Intel Core Duo*• 1 GB RAM• 5 GB free disk space for software and logs• Additional disk space for mail storage
Mac Server continued	<p>Production environments</p> <ul style="list-style-type: none">• Intel Core Solo, or Intel Core Duo*• Minimum - 2 GB RAM Recommend - 4 GB• 10 GB free disk space for software and logs• Additional disk space for mail storage <p>*There are known issues using ZCS on Macs with the Intel Core Duo. See the Release Note.</p>
Operating System Network Edition	<ul style="list-style-type: none">• Red Hat® Enterprise Linux®, AS/ES 4 and Red Hat® Enterprise Linux®, AS/ES5. (32-bit, 64-bit) For clustering, version 4, update 3 is required. The operating system must be configured as described in this guide.• Mac OS® X 10.4.7 Note: Max OS X server installs, the following features are not included: attachment indexing/search, view attachments as HTML, clustering.• SUSE ES 10 and SUSE ES 10 (64-bit) Note: SUSE server installs, the following features are not included: clustering• Ubuntu 6.06.1 LTS• rPath VMware
Operating System Open Source Edition	<p>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.</p>

Other Dependencies	<p>For Red Hat Enterprise, Fedora Core and SuSE operating systems, the server must also have the following installed:</p> <ul style="list-style-type: none"> • NPTL. Native POSIX Thread Library • Sudo. Superuser, required to delegate admins. • libidn. For internationalizing domain names in applications (IDNA) • cURL. A command line tool for transferring files with URL syntax • fetchmail. A remote-mail retrieval and forwarding utility used for on-demand TCIP/IP links. • GMP. GNU Multiple-Precision Library. • compat-libstdc ++-33. Compatibility Standard C++ libraries. NOTE: The 32-bit version of the compat-libstdc rpm package is required for both 32-bit or 64-bit servers. • For Red Hat Enterprise only: compat-libstdc ++-296
	For Mac servers, Java 1.5 must be installed as the default Java.
Miscellaneous	<ul style="list-style-type: none"> • SSH client software to transfer and install the Zimbra Collaboration Suite software. • Valid DNS configured with an A record and MX record • Servers should be configured to run Network Time Protocol (NTP) on a scheduled basis
Administrator Computers *These OS configurations have been tested and are known to work. Other configurations may work.	<ul style="list-style-type: none"> • Windows XP with either Internet Explorer 7.0 and 6.0 SP2 or Firefox 1.5.x and 2.0 • Macintosh OS X 10.4 with Firefox 1.5 and 2.0

End User Computers using Zimbra Web Client *These OS configurations have been tested and are known to work. Other configurations may work.	<p>Minimum</p> <ul style="list-style-type: none">• Intel/AMD/Power PC CPU 750MHz• 256MB RAM <p>Recommended</p> <ul style="list-style-type: none">• Intel/AMD/Power PC CPU 1.5GHz• 512MB RAM <p>Operating system/ browser combinations</p> <ul style="list-style-type: none">• Windows XP with either Internet Explorer 7 and 6.0 SP 2 or Firefox 1.5.x and 2.0• Fedora Core 4 with Firefox 1.5 and 2.0• Mac OS X 10.4 with Firefox 1.5 and 2.0 or Safari (Beta)
End User Computers Using Other Clients *These OS configurations have been tested and are known to work. Other configurations may work.	<p>Minimum</p> <ul style="list-style-type: none">• Intel/AMD/Power PC CPU 750MHz• 256MB RAM <p>Recommended</p> <ul style="list-style-type: none">• Intel/AMD/Power PC CPU 1.5GHz• 512MB RAM <p>Operating system POP/IMAP combinations</p> <ul style="list-style-type: none">• Windows XP with either Outlook Express 6, Outlook 2003 (MAPI), or Thunderbird 1.0.7• Fedora Core 4 with Thunderbird 1.0.7• Mac OS X 10.4 with Apple Mail
Monitor	Display minimum resolution 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.

ZCS 5.0 12/19/2007

