Linux MDS

Getting Started Guide

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Introduction

The Linux Managed Dedicated Server (*Linux MDS*) offers the benefits of a managed hosting solution with the flexibility of a dedicated Red Hat Enterprise Linux (RHEL) server. The customized technology of Linux MDS provides a solution where the operating system and core services are managed for you. At the same time, you have full root access to your files and programs.

Purpose of this Document

This document provides information for basic administration of your account. It provides important information about creating users, configuring email and subhosts (or *virtual hosts*), and server software management to help you begin using your account. This document describes server management from a shell command line and assumes you understand shell clients and command-line interaction with Linux (or other UNIX-like) servers. If you do not use shell command line or are not familiar with shell interaction, you can install and use the CPX: Control Panel Web interface. For more information about CPX: Control Panel, see customer documentation for the CPX: Control Panel, which includes a guide to getting started with that Web interface. Your account includes several *v-commands*. These commands, created specifically for your product, enable server administration. Some examples discussed in this document include `vadduser`, `vrmuser`, and `vaddhost`.

Navigating this Document

This document describes how to add, remove, or configure server users, email addresses, aliases, virtual user table (*virtusertable*) entries, catchalls, and subhosted Web site configurations. In addition, this document describes how to use custom installation scripts (*vinstall* and *vuninstall*) which enable you to install and/or remove programs, packages, and features. Refer to the following sections for instructions:

Manage Users

As part of the automatic maintenance provided with your account, your server contains several necessary root and application users by default, such as `root`, `ftp`, `pop`, and the administrative user (created when you ordered the server). You can create additional users and offer them services, such as FTP, email, and shell access. This section describes adding, managing, and removing users.

Note: When adding, configuring, or removing users, you must be the root user. You can become the root user by typing `su -` at the command line and supplying the root user password.

Adding Users

To add a server user, follow these steps from the command line:

1. Type `vadduser` and press **Enter**.
2. Further instructions and information for vadduser will display during this step and throughout the vadduser process. Press **Enter** to continue after reviewing the information.
3. Type the username for the user you wish to create and press **Enter**. Usernames consist of alphanumeric characters up to sixteen (16) characters. The first character cannot be a number.

Note: The operating system supports multi-byte characters in usernames, but will not support the following multi-byte characters because they are reserved for system use: `@`, `$`, `#`, `/` or `\`. (To learn more about using multi-byte characters in usernames, refer to the following Web site: http://www-ccs.ucsd.edu/c/charset.html.)

4. Type the user's password and press **Enter**. Use a password that will not easily be guessed. A combination of uppercase and lowercase letters, numbers, and symbols is an example of a more secure password. If a particularly insecure password is entered, the system will prompt you to enter a more secure password. You will need to type the same password twice for confirmation.
5. Type the user's full name and press **Enter**. This information displays when you use system tools such as `vlist` (used to list all server users).
6. Type the user's home directory path and press **Enter**. The `vadduser` command simplifies this step and provides a recommended Linux MDS path for you. You can press **Enter** without typing a path to select this default.
7. Select the services to offer the user. This is a toggle-style prompt, with the FTP and email services enabled for the user by default. Available services include `ftp`, `mail`, and `shell`. Type the service name at the prompt and press **Enter** to toggle the service on or off. Press **Enter** when done.

Caution:
Shell access enables control over many aspects of the server. Shell access should only be offered to trusted users. With shell access users can potentially change files or settings affecting your entire server. Use care when offering the shell service to users.

8. Type the user's allotted file system (or *filesystem*) quota in megabytes (MB). The quota must be a whole number. Enter `0` to give the user an unlimited quota (up to the free space available for your plan). Press **Enter** to complete the addition of the user.

Administering and Configuring Users

To list all existing server users, type `vlist` at the command prompt.

To change the full name, services offered, or quota for a user, follow these steps from the command line:

1. Type `vedituser` and press **Enter**
2. Type the name of the user in question and press **Enter**.

3. Select the services to offer the user. This prompt is a toggle-style prompt, with the FTP and email services enabled for the user by default. Available services include `ftp`, `mail`, and `shell`. Type the service name at the prompt and press **Enter** to toggle the service on or off. Press **Enter** when done.

4. Type the user's allotted filesystem quota in megabytes (MB). The quota must be a whole number. Enter `0` to give the user an unlimited quota (up to the free space available for your plan). Press **Enter** to complete the addition of the user.

To change a server user's password, follow these steps from the command line:

1. Type `passwd` *name*, where *name* is the username of the user in question. Press **Enter**.

2. Type the new password and press **Enter**. Type the new password again for confirmation and press **Enter**. If the two passwords do not match, you will be prompted to type them again.

Note: Use a password that will not easily be guessed. A combination of uppercase and lowercase letters, numbers, and symbols is an example of a more secure password. If a particularly insecure password is entered, the system will prompt you to enter a more secure password.

Removing Users

To remove a server user, follow these steps from the command line:

1. Type `vrmuser` and press **Enter**.

2. Type the username of the user to remove. If the user does not exist, the system will indicate the user does not exist in the password database and exit the removal process.

3. The system will display the password entry for the user to be removed and ask you to confirm the removal of the user. Type `yes` if the information is correct or `no` to exit the process. Press **Enter**.

Caution:
Use extreme caution when removing the home directory of users (step 4). You will not be warned if Web content or other important information is stored in the user's home directory. Removing a user's home directory will immediately delete all contents of that directory.

4. The system will display the user's home directory and ask if you wish to remove it. Type `yes` and press **Enter** to remove the directory and complete the removal of the user, or type `no` and press **Enter** to remove the user, but keep the user's home directory and its contents.

Note: If you remove a user, but not the files or home directory they own, the files or directories of the removed user will be owned by a system-generated four digit ID (for example: `1007`).

Manage Email

All user email boxes reside in the `/var/mail` directory. The system automatically creates email boxes for server users. If no other email routing settings (such as aliases or virtusertable entries) are configured, the username is the default valid email for all domains that resolve to the server. For example, if *domain1.com* and *domain2.com* resolve to the server, for the user *bob*, both *bob@domain1.com* and *bob@domain2.com* would deliver email to the `/var/mail/`*bob* email box. The system checks for matches in email routing and addresses in the following order and delivers to the first match it finds:

- virtusertable entries
- aliases
- users

This section describes virtusertable entries, catchall, and alias configurations.

 Note: To edit the virtusertable entries and aliases files, you must be the root user. You can become the root user by typing `su -` at the command line and supplying the root user password.

Configuring Virtusertable entries

Virtual user table (*virtusertable*) entries route the full email address (both sides of the @) to a local user, alias, or remote email address, but cannot map to files or programs. Only aliases can route email to a file or program. A virtusertable entry consists of the virtusertable entry and its destination, or mapping. For example, a virtusertable entry for *bob@domain1.com* could be mapped to the user *bob* with the following virtusertable entry:

```
bob@domain1.com      bob
```

Virtusertable entries enable you to create email addresses without the need to create a corresponding user. For example, a virtusertable entry for *bob@domain2.com* could be mapped to *bob@remotedomain.com* with the following virtusertable entry:

```
bob@domain2.com      bob@remotedomain.com
```

In this example, remotedomain.com would indicate a remote domain which does not resolve to your account.

Specify virtusertable entries in the `/etc/mail/virtusertable` file, with one virtusertable entry per line. The `virtusertable.sample` file provided with each server contains example virtual user tables. You can change virtusertable entry settings by editing the `virtusertable` file and then executing a hash command:

```
makemap hash /etc/mail/virtusertable < /etc/mail/virtusertable
```

The `hash` command rebuilds the `virtusertable.db` file which includes the new `virtusertable` entries.

Configuring Catchalls

> **Caution:**
> *Catchall virtusertable entries should be used sparingly. Spammers often send many emails to every conceivable address for a domain, often numbering in the thousands. A catchall virtusertable entry would cause the system to receive all of these emails and map them to the recipient.*

A special virtusertable entry called a *catchall* maps all email not otherwise configured with a virtusertable entry for a given domain to a single recipient. For example, the following catchall virtusertable entry would map all email not configured with another virtusertable entry for the domain *company.com* to the *joe* user:

```
@company.com   joe
```

If no virtusertable entry exists for an email address, and a catchall virtusertable entry is configured for the domain, the system would route all email sent to that address to the catchall virtusertable entry.

Configuring Aliases

Email aliases forward email to a user, another alias, email address, list of addresses, file, or program. Aliases enable you to create email addresses without the need to create a corresponding user. For example, the following alias would forward email sent to *webmaster@domain.com* to the *stan* user:

```
webmaster:   stan
```

Aliases also enable you to send email to a list or to a program. For example, the following alias would forward email sent to *sales@corporation.com* to the *bob*, *joe*, and *stan* users:

```
sales:   bob,joe,stan
```

For long email lists, place the emails in a file, one address per line, and use the *include* option. For example, the following alias would forward email sent to *promotion@website.com* to all addresses in the `/lists/promotion` file:

```
promotion:     :include:   /lists/promotion
```

Specify aliases in the `/etc/aliases` file, with one alias per line. You configure the aliases by editing the `aliases` file according to your needs. After making changes to the file, execute the `newaliases` command from the command line to load the new aliases into the system. Changes to aliases will not be used by your account until you execute `newaliases`.

 Note: The system only considers the first portion of the email address (before @) for aliases. To map an entire email address to a certain recipient, use a virtusertable entry.

Manage Subhosts

Your account enables you to configure multiple Web sites and domains in addition to the main domain of the server. The main domain or site for the server is called the hostname. Place the Web content for this site in the `/www/htdocs` directory.

You may have configured a custom hostname during the order process. To aid with configuring and testing your server, all Linux MDS servers receive a temporary domain name, or *temp domain*, which resolves to your account. This domain can be used if the custom hostname is inaccessible or does not yet resolve to your server.

Other domains or sites hosted by your server are called subhosts. This section explains adding, removing, and configuring subhosts.

> **Note:** To execute the `vaddhost` command or edit the `httpd.conf` file, you must be the root user. You can become the root user by typing `su -` at the command line and supplying the root user password.

Adding a Subhost

Subhosts are configured with the Apache `VirtualHost` directive. The Apache Web server looks for `VirtualHost` entries in the `/www/conf/httpd.conf` file. The `vaddhost` v-command assists in the creation of the subhost configuration `VirtualHost` tags in your Apache configuration file.

Subhost configuration includes many variables. While separated here into three sections, the entire process includes all three and you must complete all of them to entirely configure the subhost.

To begin the subhost configuration and specify the domain and administrator, follow these steps from the command line:

1. Type `vaddhost` and press **Enter**. Instructions and information for vaddhost will display during this step and throughout the vaddhost process.

2. Type the domain for the subhost (*domain.com*, for example), any secondary domains (*www.domain.com*, *store.domain.com*, etc), and any other domains used for this subhost, pressing **Enter** after each. The first domain entered will be the main domain for the subhost. Additional variations will be aliases that point to the main domain. Press **Enter** without any text after providing all variations to move to the next step.

> **Note:** The hostname or subhost usually consists of the top-level domain (*domain.com*) instead of a canonical name such as *www.domain.com*. Canonical names are usually added as secondary domains or aliases.

3. The system displays the list of domains and variations for verification. Type `y` and press **Enter** to continue or type `n` and press **Enter** to input the domains again.

4. Type the username of the user who will administer the subhost and press **Enter**. (Press **Enter** without any text to display a list of existing users.) This user should be the owner of the site files and folders; otherwise the Web server will not be able to load the site.

5. Verify the information and type `y` and press **Enter** to continue or type `n` and press **Enter** to input the username again.

To continue the configuration and specify SSL, administrative email, and document root (Web directory) settings, follow these steps from the command line:

1. To enable SSL for the subhost type `y` and press **Enter** or type `n` and press **Enter** to not enable SSL for the subhost.

2. Verify the information and type `y` and press **Enter** to continue or type `n` and press **Enter** to input the SSL information again.

3. Type the email address of the subhost administrator and press Enter.

4. Verify the information and type `y` and press **Enter** to continue or type `n` and press **Enter** to input the address again.

5. Type the path for the subhost Web directory, or document root, on the server. The `vaddhost` command simplifies this step and provides a recommended path for you. You can press **Enter** without typing a path to select this default, which will create a subhosted directory in the home directory of the user specified in step 4.

6. Verify the information and type `y` and press **Enter** to continue or type `n` and press **Enter** to input the path again.

To continue the configuration and specify `log` and `cgi-bin` settings, follow these steps from the command line:

1. Select an option for the subhost transfer log and press **Enter**.

2. Verify the information and type `y` and press **Enter** to continue or type `n` and press **Enter** to choose the transfer log configuration again.

3. Select an option for the subhost error log and press **Enter**.

4. Verify the information and type `y` and press **Enter** to continue or type `n` and press **Enter** to choose the error log configuration again.

5. Select an option for the subhost cgi-bin and press **Enter**. This will enable the subhost to execute scripts and programs.

6. Verify the information and type `y` and press **Enter** to continue or type `n` and press **Enter** to choose the cgi-bin configuration again.

7. The system will display the `VirtualHost` entry to be added to the `httpd.conf` file for confirmation. Type `y` and press **Enter** to add the entry to the `httpd.conf` file, or type `n` and press **Enter** to abort the `vaddhost` process.

8. If you typed `y` to accept the entry, type `y` and press **Enter** to restart the Web server and complete the subhost addition.

Note: Press **ctrl+c** to exit the `vaddhost` process at any time. This immediately cancels `vaddhost` and any subhost configuration entered during the `vaddhost` process is lost.

Configuring a Subhost

You may configure a subhost further by editing the `VirtualHost` entries for the subhost in the `/www/conf/httpd.conf` file. Execute the `restart_apache` command from the command line after editing the file to restart the Web server and make the changes effective.

Removing a Subhost

The `/www/conf/httpd.conf` file contains the configuration for subhosts. To remove the subhost configuration from the Web server, follow these steps:

1. **Edit** the `httpd.conf` file and remove the `VirtualHost` entries for the subhost in question.

2. After modifying the `httpd.conf` file, execute the `restart_apache` command from the command line to restart the Web server.

3. Remove any unneeded files or directories for the subhost from the server.

Note: See "Removing Users" on page 3 for further information about subhost files and directories assigned to a user and considerations when removing that user.

Use Vinstall and Vuninstall

Your server contains another feature unique to Linux MDS which makes configuration of your server easier. The `vinstall` v-command enables the installation and configuration of programs to your server. Programs available for installation through `vinstall` have been configured specifically for the Linux MDS system and enable you to utilize a variety of programs without complicated manual configuration.

The `vuninstall` utility removes files and configurations created by the `vinstall` utility. This section describes using `vinstall` and `vuninstall` to list available programs, find information about them, install, and/or remove programs.

You can execute the `vinstall` utility using interactive commands, or supply the needed information as command-line options to avoid the interactive `vinstall` prompts. Refer to Table 1 for a list of the possible `vinstall` actions you can execute and the interactive and non-interactive commands for each. Substitute `vuninstall` for `vinstall` when removing programs.

 Note: Certain programs may prompt for further information as part of their own installation process, even when using the non-interactive `vinstall` commands.

Table 1: `vinstall` command options

Actions	Interactive Command	Non-interactive Command
Enter interactive mode	`vinstall`	n/a
List available programs	`?`	`vinstall -l`
Find additional information about a program	*program*	n/a
Enter install mode	`install`	n/a
Install a program	*program* (while in install mode)	`vinstall` *program*
Exit interactive mode	`quit`	n/a

Note: Press **ctrl+c** at any time to exit the interactive or non-interactive `vinstall` process. Use this option with caution as it immediately cancels `vinstall` and may leave installations and programs incomplete and non-functional.