Installing Cisco Multicast Manager

This chapter contains the following sections:

System Requirements

This section describes the system requirements for running Cisco Multicast Manager 2.4.

Operating Systems

Cisco Multicast Manager can run on Linux systems and on Sun Microsystems systems running Sun Solaris.

Linux

CMM 2.4 can run on the following Linux versions:

- Red Hat Enterprise Linux ES/AS 3
- Red Hat Enterprise Linux ES/AS 4

Sun Systems

CMM 2.4 can run on the following Sun Solaris versions:

- Solaris 8
- Solaris 9
- Solaris 10

> **Note** Solaris x86 is not supported.

Supported Hardware Platforms

This section describes the minimum recommended hardware for running Cisco Multicast Manager 2.4 on a Linux system or a Sun Solaris system.

Linux

On Linux systems, the following hardware is supported:

- Dual AMD Opteron 250 processor.

  A 2.4 GHz 64 bit processor is recommended for a large enterprise network (more than 500 devices).

- 2.8 GHz Intel Pentium IV or 2.8 GHz Intel Xeon processor.

- A Dual 2.8 GHz Intel Pentium IV or a Dual 2.8 GHz Intel Xeon processor is recommended for large enterprise networks (more than 500 devices).

Sun Microsystems Servers

Cisco Multicast Manager supports the following hardware on Sun Microsystems servers:

- **Sun Fire V440**: Up to four 1.593-GHz UltraSPARC IIIi processors for a large enterprise network (more than 500 devices).

- **Sun Fire V240**: One 1.34 GHz or two 1.5 GHz UltraSPARC processors.

> **Note** The 64-bit versions of Red Hat are currently not supported.

Disk Space Requirements

CMM requires 300 MB of disk space.

> **Note** Disk space requirements will vary depending on the size of the network, the number of devices being polled for thresholds, and how often log files are rotated. The following log files are generated by CMM 2.3:
>
> <INSTALLDIR>/mmtsys/sys/events.log
> <INSTALLDIR>/mmtsys/sys/rmspolld.log
> <INSTALLDIR>/httpd_perl/logs/error_log

Memory Requirements

- 2 GB

- 4 GB for Large Enterprise (more than 500 devices)

Licensing

CMM 2.4 requires a license file, which is provided when you purchase the product. The license file enables the product features that you have purchased.

The license file can enable:

- Cisco Multicast Manager with Video Operations Solution (VOS) support.
- Cisco Multicast Manager with Multicast VPN (MVPN) support.
- Cisco Multicast Manager with both VOS support and MVPN support.

If one of the features is not enabled, then the menus in the user interface do not include selections that enable options provided with the feature.

The application license is contained in the license.key file.

Place the license.key file in the following directory:

On Solaris:

```
/opt/RMSMMT/mmtsys/sys
```

On Linux:

```
/usr/local/netman/mmtsys/sys
```

The file should be owned by mmtuser (`chown mmtuser:mmtuser license.key`) and be set to read-only (`chmod 0444 license.key`). The license is tied to the IP address of the CMM server.

TFTP Server

Cisco Multicast Manager requires that the server have TFTP enabled if you want to download router configurations and use the router config verification tool.

A TFTP directory should be created on the largest partition and then linked from the root directory as follows—assuming the directory was created under /usr: ln -s /usr/tftpboot /tftpboot

For Linux ES/AS 4:

tftp-0.39-2

For Linux ES/AS 3:

tftp-0.39-0.EL3.1

After TFTP is installed, modify the /etc/xinetd.d/tftp file to enable the TFTP server.

Set the ownership and permissions as follows:

```
chown root:mmtuser tftpboot
chmod 0775 tftpboot
```

Then restart the **xinetd** process: `/etc/init.d/xinetd restart`.

For Solaris:

Comment out the `tftpd` line in the /etc/inetd.conf file to enable the TFTP server, then restart the **inetd** process.

Linux IP Address/Default Route

- To change the system's IP address you modify the /etc/sysconfig/network-scripts/ifcfg-eth0 file, then restart the system.

- To change the default gateway, you must modify the /etc/sysconfig/network file.

- To temporarily change these values you can use the following commands:

```
ifconfig eth0 x.x.x.x
route delete default
route add default gw x.x.x.x metric 1
```

Solaris Installation Instructions

Complete these steps to install CMM 2.4 on a Sun Solaris system:

1. Install the license file.

2. Create the installation directory (optional).

3. If you are installing from the CD-ROM, mount the CD-ROM.

4. If you are installing from the tar file, unzip the tar file.

5. Run the Solaris installation script.

Installing the License File

Place the license file (**license.key**) in an appropriate directory on the host.

Creating the Installation Directory (Optional)

On Solaris systems, Cisco Multicast Manager must be installed in the /opt/RMSMMT directory, and requires approximately 300MB of disk space.

If there is not enough room in /opt, create the RMSMMT directory on another partition, then create a symbolic link to it from /opt. For example, log in as root and issue these commands:

```
# mkdir /space/RMSMMT
# cd /opt
# ln -s /space/RMSMMT RMSMMT
# chown -h mmtuser:mmtuser RMSMMT
```

If you symbolically link /opt/RMSMMT to the actual installation directory as shown above, when the installation is complete, you **must** change directory to the actual installation directory. For example:

```
# cd /space
```

and issue the following command:

```
# chown -R mmtuser:mmtuser RMSMMT
```

Otherwise, the installation creates the directory and sets the ownership for you.

Mounting the CD-ROM

If installing from CD-ROM:

```
# cd /cdrom/cdrom0
# ./install.sh
```

If vold is not running, you will have to manually mount the CD-ROM:

```
# mount -rt hsfs /dev/sr0 /cdrom
```

or

```
# mount -rt hsfs /dev/dsk/c0t6d0s2 /cdrom
```

Unzipping the Tar File

If installing from the tar file, create a /tmp directory and place the tar file there:

```
# cd /tmp
# mkdir rms
# cd rms
# gunzip -c mmt-sol-2.1-X-full.tar.gz | tar xvf -
```

Running the Solaris Installation Script

To run the Solaris installation script:

Step 1   Log in as **root**.

Step 2   Go to the directory where you have installed the installation script (install.sh) and enter:

```
install.sh
```

The system issues a series of prompts.

Step 3   Answer the prompts as indicated in Table 1-1.

Table 1-1   Solaris Installation Prompts

Prompt	Response
Each product must be purchased individually, however a single license can enable one or more of the applications. Have you obtained a license key? [y/n]:	If you have obtained a license key, enter **y**.
The application installs in /opt/RMSMMT. Do you wish to continue? [y/n]:	Enter **y** to install in the default installation directory.
Would you like to install the license key now? [y/n]:	Enter **y** to install the license.key file.
Enter license file:	Enter the path and filename of the license.key file.

Example 1-1 shows sample output from the Solaris installation.

Example 1-1   Sample Output from the Solaris Installation Script

```
#./install.sh
Installing CMM for SunOS
5.10 ok
Installing Cisco Multicast Manager Version 2.4 Beta 09
Installing Cisco Route Manager Version 2.3.2
Copyright (c) 2003-2007 Cisco Systems, Inc. All Rights Reserved.

Each product must be purchased individually, however a single license can enable
one or more of the applications.
Have you obtained a license key? [y/n]:

Please install the license file according to the release notes once this install
ation finishes.


Please install the license file according to the release notes once this installation
finishes.

The application installs in /opt/RMSMMT. Do you wish to continue? [y/n]:

Creating mmtuser gid...
The mmtuser group already exists
Creating mmtuser uid...
The mmtuser id already exists.
Installing Apache...
Installing Perl...
Installing MIBS...
Installing support files...
Installing ciscomm to /etc/init.d...
install: ciscomm already exists in /etc/init.d
ln: /etc/rc0.d/K03ciscomm: File exists
ln: /etc/rc1.d/K03ciscomm: File exists
ln: /etc/rc3.d/S98ciscomm: File exists
ln: /etc/rcS.d/K03ciscomm: File exists
Initializing IP Address database with reserved Multicast Addresses...
Modifying httpd.conf file for this system...
Installation Finished.
Would you like to install the license key now? [y/n]:

Cisco Multicast Manager/Cisco Route Manager
License Installation Utility
Copyright (c) 2003-2007 Cisco Systems, Inc. All Rights Reserved.

Enter license file: /opt/license.key

Installing license...
Testing license...
Licensed to  : Cisco
Ip address   : 172.20.111.246
Expire date  : No expiration date.
Features     : MMT,VOS,MVPN
Device limit : 1000
```

Linux Installation Instructions

Complete these steps to install CMM 2.4 on a Linux system:

1. Install the license file.

2. Create the installation directory (optional).

3. If you are installing from the CD-ROM, mount the CD-ROM.

4. If you are installing from the tar file, unzip the tar file.

5. Run the Linux installation script.

Installing the License File

Place the license file (license.key) in an appropriate directory on the host.

Creating the Linux Installation Directory (Optional)

On a Linux system, install Cisco Multicast Manager in /usr/local/netman. On a Linux installatin, Cisco Multicast Manager requires approximately 300 MB of disk space.

If there is not enough room in /usr/local, create the netman directory on another partition, then create a symbolic link to it from /usr/local. For example:

```
#mkdir /space/netman
# cd /usr/local
# ln -s /space/netman netman
# chown -h mmtuser:mmtuser netman
```

If you symbolically link /usr/local/netman to the actual installation directory as shown above, then when the installation is complete, you **must** change directory to the actual installation directory. For example:

```
# cd /space
```

and issue the following command:

```
# chown -R mmtuser:mmtuser netman
```

Otherwise, the installation program creates the directory and sets the ownership for you.

Mounting the CD-ROM (Linux)

If installing from a CD-ROM, issue one of the following commands to mount the CD-ROM:

- If you are mounting an ISO CD-ROM image downloaded from Cisco Connection Online (CCO)—not a physical CD-ROM—use a mount command for mounting an ISO image. For eample, enter:

```
# mount -t iso9660 -o loop image.iso /mnt/isoimage
```

- If you are mounting an actual physical CD-ROM, use one of the following commands:
  - If you are running Red Hat Linux ES/AS 3, use this command:

    ```
    # mount /dev/cdrom /mnt/cdrom
    ```

  - If you are running Red Hat Linux ES/AS 4, use this command:

    ```
    # mount /dev/hdc  /media/cdrom
    ```

Unzipping the Tar File

If installing from the tar file, create a /tmp directory and place the tar file there:

```
# cd /tmp
# mkdir rms
# cd rms
# gunzip -c mmt-sol-2.1-X-full.tar.gz | tar xvf -
```

Running the Linux Installation Script

To run the Linux installation script:

Step 1   Log in as root.

Step 2   Go to the directory where you have installed the installation script (install.sh) and enter:

```
install.sh
```

The system issues a series of prompts.

Step 3   Answer the prompts as indicated in Table 1-2.

Table 1-2   Linux Installation Prompts

Prompt	Response
Each product must be purchased individually, however a single license can enable one or more of the applications. Have you obtained a license key? [y/n]:	If you have obtained a license key, enter **y**.
The application installs in /usr/local/netman. Do you wish to continue? [y/n]	Enter **y** to install in the default installation directory.

Table 1-2   Linux Installation Prompts (continued)

Prompt	Response
Would you like to install the license key now? [y/n]:	Enter **y** to install the license.key file.
Enter license file:	Enter the path and filename of the license.key file.

Example 1-2 shows sample output from the Linux installation.

Example 1-2   Sample Linux Installation Output

```
[root@simcafe-cmm-02 dvd]
./install.sh
Installing CMM for Linux
AS3 ok
Installing Cisco Multicast Manager Version 2.4 Beta 09
Installing Cisco Route Manager Version 2.3.2
Copyright (c) 2003-2007 Cisco Systems, Inc. All Rights Reserved.

Each product must be purchased individually, however a single license can enable one or
more of the applications.
Have you obtained a license key? [y/n]:

Please install the license file according to the release notes once this installation
finishes.

The application installs in /usr/local/netman. Do you wish to continue? [y/n]:

Creating mmtuser gid...
The mmtuser group already exists
Creating mmtuser uid...
The mmtuser id already exists.
Installing Apache...
Installing Perl...
Installing MIBS...
Installing support files...
Installing ciscomm to /etc/init.d...
/bin/ln: `/etc/rc0.d/K03ciscomm': File exists
/bin/ln: `/etc/rc1.d/K03ciscomm': File exists
/bin/ln: `/etc/rc2.d/S98ciscomm': File exists
/bin/ln: `/etc/rc3.d/S98ciscomm': File exists
/bin/ln: `/etc/rc4.d/S98ciscomm': File exists
/bin/ln: `/etc/rc5.d/S98ciscomm': File exists
/bin/ln: `/etc/rc6.d/K03ciscomm': File exists
Initializing IP Address database with reserved Multicast Addresses...
Modifying httpd.conf file for this system...
Installation Finished.
Would you like to install the license key now? [y/n]: y

Cisco Multicast Manager/Cisco Route Manager
License Installation Utility
Copyright (c) 2003-2007 Cisco Systems, Inc. All Rights Reserved.

Enter license file: /usr/local/license.key
Installation Finished.
```

Changing the HTTP Port

The server is configured by default to run on port 8080. If you want to change it, edit the /usr/local/netman/httpd_perl/conf/httpd.conf file.

Starting and Stopping CMM

To start the application:

On Solaris:

From the CMM home directory (by default, /opt/RMSMMT), run the **S98mmt** script.

On Linux:

From the CMM home directory (by default, /usr/local/netman), run the **S98mmt** script.

To stop the application, run the **K98mmt** script.

The **S98mmt** script also runs the **S98mmtpolld** script, which starts the polling daemon. The **S98mmtpolld** script can also be used as a watchdog script to ensure that the polling daemon is up and running. The root **crontab** configuration would be:

On Solaris:

```
0,5,10,15,20,25,30,35,40,45,50,55 * * * * /opt/RMSMMT/S98mmtpolld
```

On Linux:

```
*/5 * * * * /usr/local/netman/S98mmtpolld
```

These entries will run the script every 5 minutes.

The default login username is admin, and the default password is rmsmmt.

Note   The **K98mmt** script will stop the apache server and the polling daemon. The S98mmt script will only start the apache server. You will have to manually start the polling daemon through the application if desired.

During installation, the **K98mmt** script is installed in the /etc/rc0.d directory. This ensures that the polling daemon shuts down properly upon system reboot.