



Quickstart: Installing and Setting Up Sun Management Center 3.6.1



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Installing Sun Management Center 3.6.1

This chapter describes how to install and set up Sun™ Management Center 3.6.1. This chapter assumes that the product has not been installed before.

This chapter has the following topics:

- “Installing the Product” on page 5
- “Preinstallation Information” on page 6
- “Sun Management Center Requirements” on page 8
- “Installing the Required JDK Version” on page 10
- “Sun Management Center Base Add-on Requirements” on page 10
- “Installing Sun Management Center” on page 12
- “Setting Up Sun Management Center” on page 16
- “(On Solaris 10) Installing and Setting Up a Sun Management Center Server Inside a Whole Root Zone” on page 22
- “Sun Management Center Documentation Resources” on page 26

Installing the Product

Sun Management Center has three main components, called base layers, that need to be installed: server, agent, and Java™ Console (console). The server is a collection of processes on a central host that enables management services. The agent is a process that runs on each monitored host. The Java Console is the window through which you monitor and manage the agents. It is the main user interface to the product.

Before you can use Sun Management Center 3.6.1, you must install the

- Server – On at least one machine.

Note – When the server is installed, the Sun Management Center agent is installed on the server machine as well.

- Agent – On all machines you want to monitor.
- Java Console – On any machine from which users will log into Sun Management Center.

In planning your installation you need to consider the following items:

- On which machine do you want to run the Sun Management Center server?
- Which machines do you want to monitor and manage? On these machines you need to install the Sun Management Center agent.
- On which machines do you want to run the Sun Management Center console? On these machines you need to install the Java Console.
- Do you want to install the production environment or the developer environment? In a production environment you use Sun Management Center to manage and monitor your hardware. In a developer environment you use the product to develop and test modules to work with it. For more information on the production environment and the developer environment, see *Sun Management Center 3.6.1 Developer Environment Reference Manual*.
- Which add-on products do you want to use? Sun Management Center has add-on products to extend its feature set and to make it work with specific software products or hardware platforms. For more information on the product and how it works in these different environments, see the documentation listed in [“Sun Management Center Documentation Resources” on page 26](#).

In addition to *installing* the product components and the add-ons, you must *set up* the product components and add-ons before you can start the product.

Preinstallation Information

The following table lists the prerequisite information that you need before installing the product.

TABLE 1-1 Information Needed Before Installing

Installation Item	Description
Environment	<p>Choose the <i>production</i> environment if you want to use the product to manage and monitor your hardware.</p> <p>Choose the <i>developer</i> environment to develop and test modules to work with the product. A machine used for development must meet the minimum hardware and software requirements for the server, agent, and console layers and any add-ons you install.</p> <p>Note – If you plan to install the developer environment, you should install it on a separate, dedicated machine. The server, agent, and console layers are automatically installed on a developer environment machine.</p>
Base Layers (Components)	Determine the machines on which you will install each component, for example, server, agent, and console.

TABLE 1-1 Information Needed Before Installing (Continued)

Installation Item	Description
Languages	Determine which, if any, additional languages (French, Traditional Chinese, Simplified Chinese, Korean, or Japanese) you need. The documentation for Sun Management Center 3.6.1 is not available on the media. Go to http://docs.sun.com for documentation in English and the supported languages.
Add-on Products	Review the add-on supplements to determine which add-ons you want to install. For a list of add-on supplements, see “Sun Management Center Documentation Resources” on page 26. Add-on products are installed on the same machine as the server.
Space Needed	If the machine does not have enough space in the default /opt directory, you might need to make one of the following adjustments: <ul style="list-style-type: none"> ■ Specify an alternate file system that has sufficient space ■ Select a machine with sufficient resources ■ Make more space in /opt
Permissions	You must have permission to write to the /var/opt and /opt/SUNWsymon directories as root on each machine. You also need privileges to run commands such as chmod.

After installing the product and its add-ons, you will need to set up the product and its add-ons. The following table lists the prerequisite information that you need before *setting up* the product.

TABLE 1-2 Information Needed Before Setting Up

Set Up Item	Description
Administrator user name	A valid Solaris/Linux user name is required for assignment as the Sun Management Center administrator on Sun Management Center server machines.
Network Addressing Mode	Sun Management Center uses two types of addressing for communication between the server and agent: IP addressing, and Network Address Translation (NAT). You must have the following information: <ul style="list-style-type: none"> ■ Which addressing mode is used in your network ■ The name of each machine that is to be managed by Sun Management Center ■ The IP addresses and names for all machines that have been assigned static IP addresses <p>See “Network Address Translation” for further information.</p>

TABLE 1–2 Information Needed Before Setting Up *(Continued)*

Set Up Item	Description
Sun Management Center Password to Generate Security Key	<p>Sun Management Center requires an encrypted security key for communication between processes. The security key is generated based on a unique password you provide.</p> <p>Store the password securely. You need the password if you modify your Sun Management Center installation.</p>
SNMPv1 Community String	<p>Sun Management Center requires an SNMPv1 community string for security. The default is public. You have the option of specifying a more secure custom string.</p> <p>Store the SNMPv1 string securely. You need the SNMPv1 security string if you modify your Sun Management Center installation.</p>
Information to Generate Web Server Security Key	<p>The Sun Management Center Web server requires an encrypted security key. The security key is generated based your organization name and location.</p> <p>Store the organization name and location securely. You need this information if you modify your Sun Management Center Web server.</p>
Ports	<p>Determine the assignments for the following ports:</p> <ul style="list-style-type: none">▪ SNMPv1 Port: default 161▪ Sun Management Center Port: default 161, recommended 1161▪ Database port: default 2521▪ Web server port: default 8080▪ Web server secure port: 8443 <p>See “Default Ports” for further information.</p>

Sun Management Center Requirements

The following table provides a summary of Sun Management Center 3.6.1 requirements.

Note – Some hardware platform config readers (add-ons) do not work on all layers of Sun Management Center when installed on Solaris 10.

For specific information about determining the total amount of resources needed, see “Determining Hardware Resources”.

TABLE 1-3 Sun Management Center 3.6.1 System Requirements

Base Layer	Operating System	Disk Space	RAM	Swap
Server (SPARC)	Solaris 8, Solaris 9, and Solaris 10 Solaris Developer Software Group installation	800 Mbytes total: 300 Mbytes in /opt, 500 Mbytes in /var/opt	512 Mbytes minimum 1 Gbyte recommended for small to large servers 2 Gbytes recommended for extra-large servers.	1 Gbyte recommended
Agent (SPARC)	Solaris 7, Solaris 8, Solaris 9, and Solaris 10 releases	18 Mbytes per agent in /opt/SUNWsymon. 2 Mbytes per agent in /var/opt/SUNWsymon.	10 to 29 Mbytes per agent depending on modules loaded and system type	
Agent (x86)	Solaris 9 and Solaris 10	18 Mbytes per agent in /opt/SUNWsymon. 2 Mbytes per agent in /var/opt/SUNWsymon.	10 to 29 Mbytes per agent depending on modules loaded and system type	
Agent (Linux) on x86	RedHat Linux Enterprise 2.1 - 3.0 (32-bit and 64-bit), Sun Java Desktop System 2.x, SUSE Linux Enterprise 8.0 (32-bit and 64-bit), SUSE Professional 9 (32-bit and 64-bit)	18 Mbytes per agent in /opt/SUNWsymon. 2 Mbytes per agent in /var/opt/SUNWsymon.	10 to 29 Mbytes per agent depending on modules loaded and system type	
Java Console	Solaris 7, Solaris 8, Solaris 9, and Solaris 10 releases Microsoft Windows NT SP 4 or later, Microsoft Windows 2000 Professional, Microsoft Windows XP Linux 2.4.21 kernel or higher	Solaris platform: 62 Mbytes Microsoft Windows platform: 35 Mbytes	Solaris platform: 256 Mbytes Microsoft Windows platform: 256 Mbytes	Solaris platform: 130 Mbytes Microsoft Windows platform: 768 Mbytes
		62 Mbytes	256 Mbytes	130 Mbytes

The default maximum heap size for the console and server is 64 Mbytes each.

Java console does not install jar files for add-ons.

You can customize the maximum heap size for the console and server as described in “Starting Components Using es-start”.

Installing the Required JDK Version

Sun Management Center 3.6.1 requires JDK™ 1.4.2 (minimum requirement), which is available on the `<DiskMountDir>/disk1/jdk_dir/TargetOS_dir` directory, where `jdk_dir` is the name of the JDK directory on the disk and `TargetOS_dir` is Linux or Solaris or Windows.

▼ To Install the Required JDK Version

1 Install the JDK from the disk using the `pkgadd` command.

Type the command `pkgadd -d <DiskMountDir>/disk1/jdk_dir`.

Press Return to install all of the packages. The JDK packages are installed in the `/usr/j2se` directory.

2 Reset the `JAVA_HOME` environment variable to `/usr/j2se`.

- In a C shell environment, type:

```
# setenv JAVA_HOME /usr/j2se
```

- In a Bourne or Korn shell environment, type:

```
# JAVA_HOME=/usr/j2se
# export JAVA_HOME
```

Tip – Set the `JAVA_HOME` environment variable in your `.login` or `.cshrc` file.

Sun Management Center Base Add-on Requirements

The following table shows the minimum disk space necessary to install the basic add-ons. For installation requirements for other add-ons, see the documentation supplement for that add-on. See “[Sun Management Center Documentation Resources](#)” on page 26.

For specific information about determining the total amount of resources needed, see “Determining Hardware Resources”.

TABLE 1-4 Add-on Disk Space Requirements by Base Component

Base Add-on	Operating System	Disk Space
Advanced System Monitoring	Solaris 7, Solaris 8, Solaris 9, Solaris 10 releases	Server: 3300 Kbytes Agent: 2020 Kbytes
	Windows NT, Windows 2000, Windows XP	Console: 270 Kbytes
Service Availability Manager	Solaris 7, Solaris 8, Solaris 9, Solaris 10 releases	Server: 1600 Kbytes Agent: 1000 Kbytes
		Console: 500 Kbytes
Solaris Container Manager	Solaris 8, Solaris 9, Solaris 10 releases	Server: 300 Mbytes Agent: 18 Mbytes
		Console: 500 Kbytes
System Reliability Manager	Solaris 7, Solaris 8, Solaris 9, Solaris 10 releases	Server: 3000 Kbytes Agent: 1000 Kbytes
		Console: not applicable
Performance Reporting Manager	Solaris 7, Solaris 8, Solaris 9, Solaris 10 releases	Server: depends on reporting options selected. <ul style="list-style-type: none"> ■ Small configuration: 5 Gbytes ■ Medium configuration: 12 Gbytes ■ Large configuration: 24 Gbytes
	Windows NT, Windows 2000, Windows XP	Agent: 8000 Kbytes minimum. For 1000 properties logged at five-minute intervals, 80 Mbytes are needed. Console: 3 Mbytes
Volume System Monitoring (VSM)	RedHat, SuSE Linux kernel version 2.4.x or higher, Solaris 9 or higher on SPARC and Solaris 10 or higher on i386.	Note – The Performance Reporting Manager requires 1 Gbyte of RAM and 1 Gbyte of swap space.
X86 Config Reader	Solaris 9 or higher and Linux kernel 2.6 or higher on x86/x64 systems.	

Installing Sun Management Center

Note – On Solaris 10, you can install Sun Management Center inside a whole root zone. For information about this, see “(On Solaris 10) Installing and Setting Up a Sun Management Center Server Inside a Whole Root Zone” on page 22. On Linux, you can install only agent and console layers.

This section describes how to install Sun Management Center 3.6.1 on Solaris and Linux platforms using the graphical user interface (GUI).

This installation procedure assumes that you are installing Sun Management Center from a media image directory on your network.

For information on creating an installation DVD image, see “Creating Installation DVD Images”.

▼ To Install Sun Management Center

Before You Begin (On Solaris 10 and above) Ensure that the packages `SUNWtcatu` and `SUNWtcatr` are installed in the global zone before running the Sun Management Center server layer.

1 Set up the installation environment.

- a. If you are installing the product remotely, grant access to the X server by typing the command `xhost + machine` in a terminal window where *machine* is the name of the machine where you want to install the product.
- b. Log into the machine. If you are installing the product remotely, type the command `rlogin machine` and type the password.
- c. Log in as root by typing `su - root` and the root password.

Note – Do not miss the `'-'` after the `su` command

- d. If you prefer a specific UNIX shell, type the command to use the shell, for example, `csh`.
- e. If you are installing the product remotely, ensure that the `DISPLAY` environment variable is set to the machine's display, for example, `setenv DISPLAY local-machine:0.0`.
- f. Ensure that the `group` entry in the `/etc/nsswitch.conf` has `files` as the first token.
`group: files nis`

- g. Change to the *image* directory. Ensure that the *image* directory is NFS-shared.

For example:

```
# cd /net/machine/image/disk1/sbin
```

where *machine* is the machine where you created the installation image, and *image* is the root directory containing the installation images.

- h. Review `disk1/sbin/README.INSTALL` and `disk1/sbin/INSTALL_README.HWDS`.

2 Run the installation.

- a. Change to the installation directory `<DiskMountDir>/disk1/sbin`.

- b. Type the installation command:

```
# ./es-guiinst
```

The welcome screen appears.

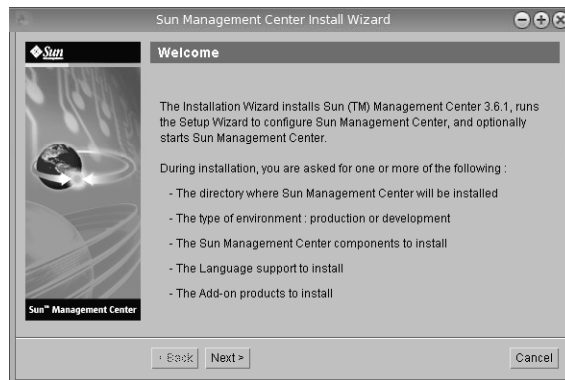


FIGURE 1-1 Welcome Screen

3 Follow the screen prompts.

- a. To accept the default `/opt` installation directory, click **Next** or click **Browse** to choose another directory.
- b. Select either the **production environment** or **developer environment**.
This procedure assumes you have selected the production environment.
- c. Select the components you want to install.
- d. Review the **Server Layer Binary Code License** and use the scroll bar to scroll down to the end of the text.

- e. To agree to the terms of the license, click I Agree and click Next.
- f. If you want to install the product in additional languages, select the additional languages and click Next. The progress bar appears.

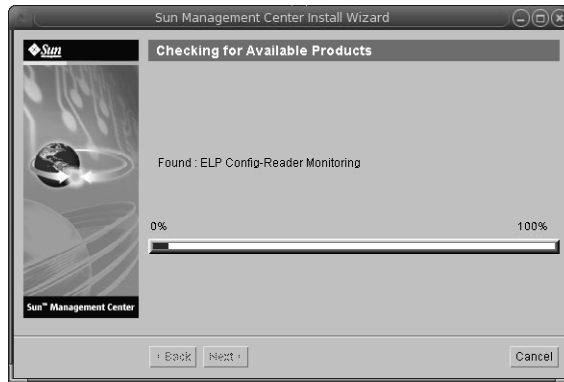


FIGURE 1-2 Checking for Available Products Progress Bar

- g. Select the add-on products.
The add-on products screen appears. Your list of add-on products might vary from this screen.

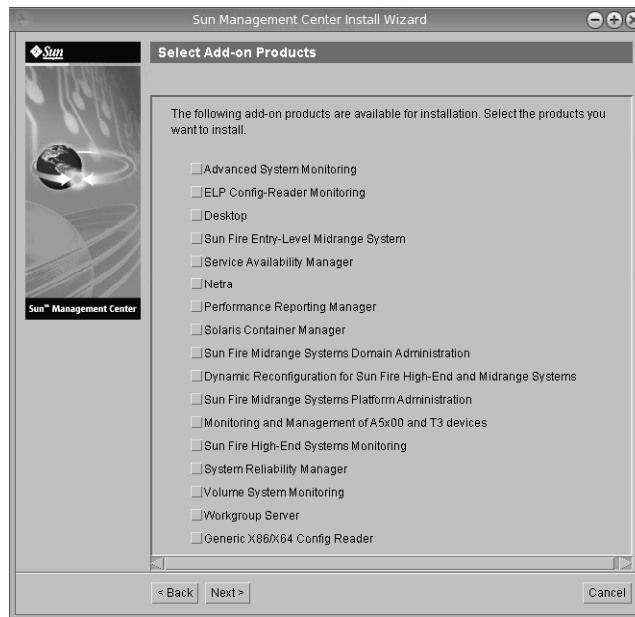


FIGURE 1-3 Add-on Products

h. If you selected add-on products that have optional components, select the optional components required and click Next.

i. Review the add-on products binary license and use the scroll bar to scroll down to the end of the text.

Some add-ons require binary license.

j. To agree to the terms of the license, click I Agree and click Next.

The Checking Disk Space progress bar appears. If there is not enough disk space, you are asked to provide an alternate file system.

Tip – In a terminal window on the machine where you are installing Sun Management Center, type `df -ak` to list the amount of used and free space for each file system on the machine.

k. Confirm installation selections and click Next.

Note – The installation process can take from a few minutes to half an hour or more, depending on the products selected.

If installation failed, a summary screen is displayed.

Review the installation log in `/var/opt/SUNWsymon/install` to find out why the installation failed, and correct the problem.

4 Choose whether to run the setup wizard.



Caution – If you have used `es-guiinst` to install only add-on products, click Close to exit the installation and setup process. You must set up the add-on products as described by “To Set Up an Add-on Product Using `es-setup`”. Otherwise, you will overwrite your security keys and will then have to set up all of the agents on all of your machines for the agents to work properly.

a. To continue to set up, click Next.

b. To run set up later, click Close.

You cannot run the product until you have set it up.

Setting Up Sun Management Center

You use the graphical setup wizard to set up, configure, and re-configure your Sun Management Center installation.

For information on using the command-line setup script, see “To Set Up Sun Management Center Using the `es-setup` Script”.

▼ To Set Up Sun Management Center

1 Set up the installation environment. For more information, see Step 1 in “To Install Sun Management Center” on page 12.

2 Change to the Sun Management Center `sbin` directory. For example:

```
# cd /opt/SUNWsymon/sbin
```

If you installed Sun Management Center in a directory other than `/opt`, Change to `/installdir/SUNWsymon/sbin`, where *installdir* is the directory you specified.

3 Run the set up by typing:

```
# ./es-guisetup
```

The Set Up screen appears.

4 Follow the screen prompts.

- a. **You are given the opportunity to store all of your setup responses in the file `/var/opt/SUNWsymon/install/setup-responses-file`. The `setup-responses-file` file is useful if you need to duplicate the setup on the current machine on other machines.**

- To continue setup without creating the response file, click Next.
- To create the response file, select Store Response Data and then click Next.

- b. **Generate the Sun Management Center security key.**

Type a password in both fields and click Next to generate the security keys.

An encrypted security key is needed for communications between all Sun Management Center processes. The key is generated based on the password you provide, which must be between one and eight characters long and contain no spaces. Entries that are greater than eight characters are truncated to eight characters.

Note – Keep a record of the password you use to generate the security key for this machine in a secure location. You might need to regenerate the key for the machine at a later time. You can also change the security key later, if needed, as described in “Regenerating Security Keys”.

- c. **Specify the SNMPv1 community security string.**

The community string is used for SNMP security and is set to `public` by default.

Set the community string to a value other than `public` or `private` to provide better SNMP security.



Caution – The same SNMP community string must be used on all of the machines on which you install Sun Management Center. If you use different community strings on each machine, SNMP communications between the machines and Sun Management Center components will not work.

- If you want to accept the community string default value of `public`, click Next.
- If you want to use a custom community string:
 - a. Select Use Custom Community String.
The community string can be up to 255 characters and must not contain any spaces or blanks.
 - b. Type the same community string in both fields, and then click Next.

- d. **Enter a valid Solaris/Linux user name as the UNIX administrator account and click Next.**

The setup process checks whether the SNMP port is in use.

- e. **If the SNMP port is in use, the SNMP Port Conflict screen appears.**



FIGURE 1-4 SNMP Port Conflict Screen

f. Resolve the port conflict.

In most cases, port 161 is the default port assigned to and used by the SNMP daemon. However, other processes or daemons could be using port 161. Several third-party replacements and enhancements for the SNMP daemon exist and could be installed on your system. The Sun Management Center agent is such a daemon.

We recommend that you use a different port number, such as port 1161.

- To assign a different port number to Sun Management Center:

- a. Click Use a Different Port Number.

For instructions on how to find out whether a port is used, see “To Determine Whether a Port Is Used”.

- b. Type the port number, for example, 1161, in the Port ID field and click Next.

Note – Keep a record of this alternate port number. You will need this number if you later install agents using JumpStart or update the Sun Management Center agents using the agent update-image tools.

- To use port 161, select Use Port 161 and click Next.

g. If you use port 161, you are reminded to manually stop and disable the SNMP daemon `snmpdx`.

Note – (On Solaris 10) If you use port 161, you will be reminded to stop and disable the SNMP daemon SMA manually.

There is no SNMP daemon on Linux by default.

- To stop and disable the SNMP daemon `snmpd` automatically, make sure that Stop and Disable SNMP Daemon `snmpd` has been selected, and then click Next.



Caution – Stopping and disabling the system SNMP daemon does not guarantee that you have stopped the actual process using port 161. To determine the actual daemon process that uses port 161, you must manually review all `/etc/rcN` and `/etc/rcN.d` files, where `N` is 0 through 6 and `S`. When you have identified the file that defines the process using port 161, you can disable the process by renaming the file. For example,

```
/etc/rc3.d# mv S76snmpd s76snmpd
```

You must stop all other processes that use port 161 before you can start Sun Management Center.

- To stop and disable the SNMP daemon `SMA`, navigate to the `/etc/init.d` directory. Type `./init.sma stop`.
- h. If any Sun Management Center ports are in use, you are prompted to resolve the port conflict.**
The ports are checked in the following order: trap service, event service, topology service, configuration service, platform agent, `cst` service, metadata service, database, look-up service, Web server default port, and Web server secure port.
If any of the ports are in use, you are prompted to provide an unused port number. Type an unused port number in the field, and then click Next.
- i. Generate the Web server security key.**



FIGURE 1-5 Web Server Security Key Generation

An encrypted security key is needed for the Sun Management Center Web server. The key is generated based on the name of your organization and the name of your location. The names that you provide must not contain any spaces or blanks.

Type the name of your organization and the name of your location to generate the Web server security key and click Next.

For example, you could type `admin` in the Name of Your Organization field and `headquarters` in the Name of Your Location field.

Note – Keep a record of the entries you use to generate the security key in a secure location in case you need to regenerate the key for a particular machine at a later time.

j. Confirm setup selections.

The setup process can take from a few minutes to half an hour or more, depending on the products selected.

If base product setup failed, you are informed that the setup of the base products was not successful. You are directed to see the log file for more details. The name of the log file is provided.

k. If you installed add-ons, click Next to set them up.

Some add-on products are included with the Sun Management Center 3.6.1 installation media. These add-ons are the ones listed in the Select Add-on Products panel. For information on how to set up each add-on, refer to the Sun Management Center supplement for each add-on. Each supplement provides the setup procedure for the specific add-on.



Caution – If you selected the add-on Monitoring and Management of A5x00 and T3 Devices, make sure you apply the necessary patches to the server as described in “Sun StorEdge A5x00 Packages”. Also, add each T3 IP address, Ethernet address, and name to the server system files, as described in “T3 Storage Devices”.

l. Start the product by selecting the components to start and clicking Next.

For more information on starting and stopping Sun Management Center, see “Starting and Stopping Sun Management Center”.



Caution – If your network uses Network Address Translation (NAT), click Close. Use the `es-config` command-line utility described in “To Enable NAT Support” to configure the machine for NAT before you start Sun Management Center.



FIGURE 1-6 Start Up the Product

- 5 Start the console by typing this from a terminal window: `./es -start -c&`.

The Java Console login screen appears.



FIGURE 1-7 Console Start Up

Tip – If help does not come up in Java Console, modify the browser path in the `javaconsole.properties` file. This file is available in `/var/opt/SUNWsymon/cfg/` if you have installed the console layer. Otherwise, this file will be available in `/opt/SUNWsymon/cfg/`.

You are prompted to select the default domain and then a screen similar to this appears.

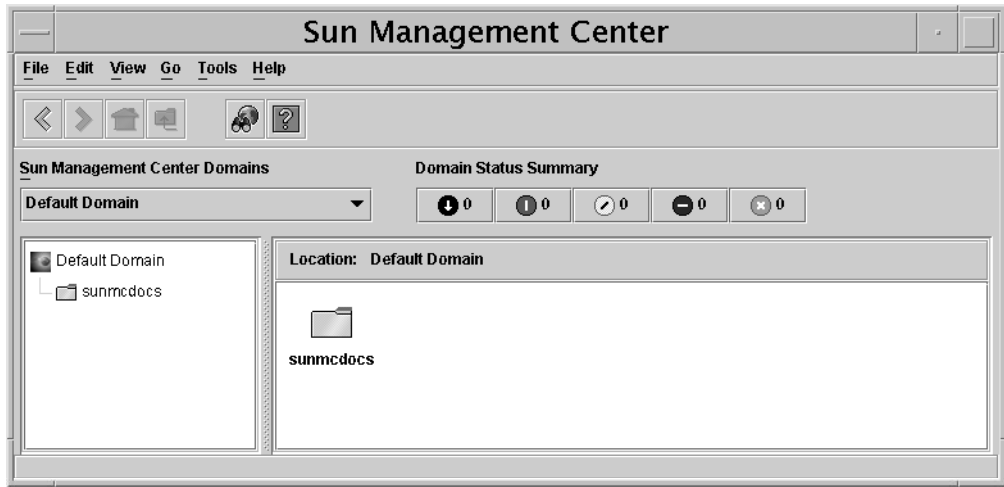


FIGURE 1–8 Sun Management Center Default Domain

Note – (On Solaris 10) When Sun Management Center is installed and set up, the services run as Service Management Facility (SMF) services. Based on the layers chosen, appropriate services will be started.

For information on using the product, see *Sun Management Center 3.6.1 User's Guide*.

(On Solaris 10) Installing and Setting Up a Sun Management Center Server Inside a Whole Root Zone

Zone is a virtualized operating system environment that you can set up for systems that run the Solaris 10 Operating System. Every Solaris system contains a global zone, the default zone for the system. You can create non-global zones. Non-global zone can either be a whole root zone or a sparse root zone.

Before You Begin

The following must be available:

- A whole root zone must be available.
- Host name and IP address must be available for the whole root zone.
- Lockhart 2.2.3 or above must be available in the global zone.
- Apache Tomcat must be available in the global zone.

TABLE 1-5 Task Information

Task	Instructions
Install Sun Cluster 3.1 Update 4 on each cluster node This task is required only if the user wants to configure Sun Management Center in a Sun Cluster environment.	Chapter 2, “Installing and Configuring Sun Cluster Software,” in <i>Sun Cluster Software Installation Guide for Solaris OS</i> .
Install and configure Sun Cluster HA agent for Solaris Container data service This task is required only if the user wants to configure Sun Management Center in a Sun Cluster environment.	Chapter 1, “Installing and Configuring Sun Cluster HA for Solaris Containers,” in <i>Sun Cluster Data Service for Solaris Containers Guide</i>
Enable a zone to run in a failover configuration	“To Enable a Zone to Run in a Failover Configuration” on page 23
Configure and install a whole root zone	“To Configure a Whole Root Zone” on page 24 and “To Install a Whole Root Zone” on page 25
Install and set up Sun Management Center inside a whole root zone	“To Install and Set Up Sun Management Center Server Inside a Whole Root Zone” on page 25

▼ To Enable a Zone to Run in a Failover Configuration

1 Register the SUNW.HASStoragePlus resource type.

```
# scrgadm -a -t SUNW.HASStoragePlus
```

2 Create a failover resource group.

```
# scrgadm -a -g solaris-zone-resource-group
```

3 Create a resource for the zone disk storage.

```
# scrgadm -a -j solaris-zone-has-resource \  
-g wholerootzone-resource-group \  
-t SUNW.HASStoragePlus \  
-x FilesystemMountPoints=/global/zones/HA
```

4 Add an entry for logical host in the /etc/hosts file on each cluster node.

```
# scrgadm -a -L -g sunmc-zone-resource-group -j sunmc-lh-rs -l logical host name
```

5 Enable the failover resource group.

```
# scswitch -e -j solaris-zone-has-resource  
  
# scswitch -Z -g wholerootzone-resource-group
```

▼ To Configure a Whole Root Zone

1 Start the zone configuration.

```
#zonecfg -z wholerootzone, where wholerootzone is the name of the new whole root zone.
```

2 Create a configuration for the specified zone.

```
zonecfg:wholerootzone> create -b
```

3 Set the zone path.

The zone path must specify a highly available local file system. The file system must be managed by the SUNW.HASStoragePlus resource.

```
zonecfg:wholerootzone> set zonepath=/global/zones/HA/wholerootzone
```

4 Set the autoboot value.

If the autoboot value is set to true, the zone is automatically booted when the global zone is booted. The default value is false.

```
zonecfg:wholerootzone> set autoboot=false
```

5 If resource pools are enabled on the system, associate a pool with the zone.

```
zonecfg:wholerootzone> set pool=pool_default, where pool_default is the name of the resource pool on the system.
```

6 Add a network virtual interface.

```
zonecfg:wholerootzone> add net
```

7 Set the IP address for the network interface.

```
zonecfg:wholerootzone> set address=10.255.255.255
```

8 Set the physical device type for the network interface.

```
zonecfg:wholerootzone> set physical=hme0  
zonecfg:wholerootzone> end
```

9 Verify and commit the zone configuration.

```
zonecfg:wholerootzone> verify  
zonecfg:wholerootzone> commit
```



```
zonecfg:wholerootzone> exit
```

▼ To Install a Whole Root Zone

1 Install the whole root zone that is configured.

```
# zoneadm -z wholerootzone install, where wholerootzone is the name of the whole root zone that is configured.
```

2 Boot the whole root zone.

```
# zoneadm -z wholerootzone boot
```

3 Log in to the zone console.

```
# zlogin -C wholerootzone
```

4 Log in to the zone.

```
# zlogin wholerootzone
```

5 (required for Sun Cluster environment) Add the entry of the whole root zone to the `/etc/zones/index` file on the cluster node.

6 (required for Sun Cluster environment) Copy the `wholerootzone.xml` file to the `/etc/zones/index` directory on the cluster node.

```
# rcp zone-install-node:/etc/zones/wholerootzone.xml
```

7 Verify the zone installation and configuration.

```
# zoneadm -z wholerootzone boot
```

```
# zlogin -z wholerootzone
```

▼ To Install and Set Up Sun Management Center Server Inside a Whole Root Zone

1 Ensure that you are inside the whole root zone that is configured and installed.

2 Follow the steps in the install wizard to install Sun Management Center.

3 Edit the `/etc/project` file for shared memory before setup. Otherwise, database setup will fail.

```
default:3:::project.max-shm-memory=(privileged,1073741824,deny)
```

1073741824 is shared memory in bytes. This depends on the amount of physical memory.

4 Follow the steps in the setup wizard to set up Sun Management Center.

Sun Management Center supports the server layer of all add-ons inside a non-global zone. Sun Management Center does not support the agent layer of add-ons like ELP Config Reader, X86 Config Reader, Solaris Container Manager, and Volume System Monitoring (VSM) inside a non-global zone.

Sun Management Center Documentation Resources

Sun Management Center works in *production* and *developer* environments. It also has many add-on products. For more information on the product and how it works in these two environments, see the documentation listed in the following table.

For updated information on documentation resources, see the *Sun Management Center 3.6.1 Installation and Configuration Guide*.

Note – Documentation for Sun Management Center is *not* installed with the product. The documents are available at <http://docs.sun.com>.

TABLE 1–6 Documentation Resources

Environment	Documentation
If you install and use the product in a <i>production</i> environment, see	<i>Sun Management Center 3.6.1 User's Guide</i> - Describes how to use the product.
	<i>Sun Management Center 3.6.1 Installation and Configuration Guide</i> - Describes how to install and configure the product.
If you use the product in a <i>developer</i> environment, see	<i>Sun Management Center 3.6.1 Developer Environment Reference Manual</i>
If you use the product with <i>other software products or add-ons</i> (listed alphabetically), see	
Advanced System Monitoring	Not Applicable
Hardware Diagnostic Suite 2.0	<i>Hardware Diagnostic Suite 2.0 User's Guide</i>
Solaris Container Manager 3.6.1	<i>Installing and Administering Solaris Container Manager 3.6.1</i>
Performance Reporting Manager	<i>Sun Management Center 3.6.1 Performance Reporting Manager User's Guide</i>
Service Availability Manager	<i>Sun Management Center 3.6.1 Service Availability Manager User's Guide</i>

TABLE 1-6 Documentation Resources	<i>(Continued)</i>
Environment	Documentation
Sun Cluster	Task Map: Installing the Sun Cluster Module for Sun Management Center in the <i>Sun Cluster Software Installation Guide for Solaris OS</i>
System Reliability Manager	Sun Management Center 3.6.1 System Reliability Manager User's Guide
Tivoli TEC Adapter	<i>Sun Management Center Tivoli TEC Adapter Installation Guide</i>
Unicenter TNG	<i>Sun Management Center CA Integration Package User's Guide for Unicenter TNG</i>
If you use the product with these <i>hardware platforms</i> (listed alphabetically), see	
ELP Config Reader (CommonConfigReader)	See Sun Fire™ V210/V240/V250/V440/1500/2500
Desktop	See Sun Blade™ 100/150/1000/1500/2000/2500
Dynamic Reconfiguration for Sun Fire high-end and midrange	See Sun Fire V880/V890/15K to 3800
hPCI+ board and CP2140 system controller for Sun Fire high-end systems	See Sun Fire high-end systems
Netra™ 20/120/1280	<i>Sun Management Center 3.5 Supplement for Netra Servers</i>
Netra 240/440	<i>Sun Management Center 3.6 Supplement for Sun Fire, Sun Blade and Netra Systems</i>
Netra T4/20	<i>Sun Management Center 3.5 Supplement for Netra Servers</i>
PCI+ support for Sun Fire midrange systems	See Sun Fire midrange systems
Sun Blade 100/150/1000/2000	<i>Sun Management Center 3.5 Supplement for Workstations</i>
Sun Blade 1500/2500	<i>Sun Management Center 3.6 Supplement for Sun Fire, Sun Blade and Netra Systems</i>
Sun Cobalt™ LX50	See the software product, Sun Management Center Linux Agent
Sun Fire V60x/V65x/V20z/V40z	See the software product, Sun Management Center Linux Agent
Sun Fire 280R/V480/V490/V880/V890	<i>Sun Management Center 3.5 Supplement for VSP High-End Entry Servers (Workgroup Servers)</i>
Sun Fire high-end E25K/E20K/15K/12K	<i>Sun Management Center 3.5 Version 6 Release Notes and Supplement for Sun Fire High-End Systems</i>

Environment	Documentation
Sun Fire midrange E6900/E4900/6800/4810/4800/3800	<i>Sun Management Center 3.5 Version 6 Release Notes and Supplement for Sun Fire Midrange Systems</i>
Sun Fire entry-level midrange E2900	<i>Sun Management Center 3.5 Version 6 Release Notes for Sun Fire Entry-Level Midrange Systems</i> <i>Sun Management Center 3.5 Version 6 Supplement for Sun Fire Entry-Level Midrange Systems</i>
Sun Fire V100/V120	<i>Sun Management Center 3.5 Supplement for Netra Servers</i>
Sun Fire V210/V240/V250/V440	<i>Sun Management Center 3.6 Supplement for Sun Fire, Sun Blade and Netra Systems</i>
Sun LX50	See the software product, Sun Management Center Linux Agent
Sun StorEdge A5x00/T3	<i>Sun Management Center 3.5 Supplement for the Sun StorEdge A5x00 and T3 Arrays</i>
UltraSPARC® IV CPU board support for Netra 1280	Requires midrange systems firmware 5.17.0 and Netra-T add-on packages for Sun Management Center
UltraSPARC IV CPU board support for Sun Fire 6800/4800	See Sun Fire 6800/4800
