



Sun™ Management Center 3.5 Supplement for Netra™ Servers

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Preface

This manual contains supplemental information about Sun™ Management Center 3.5 for Netra™ Servers, which is an extension to Sun Management Center software. This extension enables customers to manage supported Netra and Sun Fire server systems.

How This Book Is Organized

Chapter 1 explains what you need to know before installing and using Sun Management Center on your Netra server.

Chapter 2 explains specific system considerations when installing and using Sun Management Center on Netra systems.

Chapter 3 describes how to install and set up Sun Management Center on a Netra server.

Related Documentation

Application	Title	Part Number
Installing and configuring SunMC 3.5 software	<i>Sun Management Center 3.5 Installation and Configuration Guide</i>	816-2678
Using SunMC3.5 software	<i>Sun Management Center 3.5 User's Guide</i>	816-2716
Netra t 1120/1125 servers	<i>Netra t 1120/1125 Installation and Basic Maintenance Guide</i> <i>LOMlite User's Guide</i>	805-6803 806-2038
Netra t1 Model 100/105 servers	<i>Netra t1 User and Administration Guide</i> <i>LOMlite User's Guide</i>	806-4707 806-2038
Netra t 1400/1405 servers	<i>Netra t 1400/1405 Installation and User's Guide</i> <i>LOMlite User's Guide</i>	806-0575 806-2038
Netra T1 AC200 and DC200 servers	<i>Netra T1 AC200 and DC200 User's Guide</i>	806-5978
Netra X1 servers	<i>Netra X1 User's Guide</i>	806-5980
Netra 20 servers ¹	<i>Netra 20 Installation and User's Guide</i>	806-7334
Sun Fire V100 servers	<i>Sun Fire V100 Server User's Guide</i>	816-2756
Sun Fire V120 and Netra 120 servers	<i>Sun Fire V120 and Netra 120 Server User's Guide</i>	816-2090
Sun Fire V1280 Servers	<i>Sun Fire V1280/Netra 1280 System Administration Guide</i>	817-0509

¹ The Netra 20 server was originally called the Netra T4 server., and some of the software scripts associated with the server make reference to this name.

Shell Prompts

Shell	Prompt
C shell	<i>machine_name%</i>
C shell superuser	<i>machine_name#</i>
Bourne shell and Korn shell	\$
Bourne shell and Korn shell superuser	#

Typographic Conventions

Typeface	Meaning	Examples
AaBbCc123	The names of commands, files, and directories; on-screen computer output	Edit your <code>.login</code> file. Use <code>ls -a</code> to list all files. % You have mail.
AaBbCc123	What you type, when contrasted with on-screen computer output	% su Password:
<i>AaBbCc123</i>	Book titles, new words or terms, words to be emphasized	Read Chapter 6 in the <i>User's Guide</i> . These are called <i>class</i> options. You <i>must</i> be superuser to do this.
	Command-line variable; replace with a real name or value	To delete a file, type <code>rm filename</code> .

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Before You Start

This chapter introduces the Sun Management Center 3.5 Netra add-on software and explains what you should consider when preparing to install the software.

This chapter contains the following sections:

- “The Netra Packages” on page 2
- “Supported Systems and Environments” on page 3
- “Recommended Patches” on page 3
- “Unsupported Add-ons” on page 4
- “Preparing for Installation” on page 4

Sun Management Center software enables you to monitor and manage supported Sun platforms with the appropriate add-on software. The Netra software add-on provides the capability to monitor and manage the Netra systems listed in TABLE 1-2.

This document describes installation and setup issues, as well as enhancements and bug fixes, that are particular to the Netra add-on software. For information about using or installing core Sun Management Center software, see the *Sun Management Center 3.5 Software User's Guide*, and the other documents accompanying the core product software.

The Netra Packages

The Sun Management Center for Netra Servers packages correspond to the architectural layers of Sun Management Center. The following is an overview of these packages:

- **SUNWesnts** - Netra server package
Provides libraries and other files needed by the Sun Management Center server to monitor supported Netra systems. This software must be installed on all Sun Management Center server systems in addition to the base Sun Management Center server software.
- **SUNWesnta** - Netra agent package
Provides libraries and other files needed by the Sun Management Center agent to monitor supported Netra systems. This software must be installed on all Sun Management Center-monitored Netra systems in addition to the base Sun Management Center agent software.

Note – If your Sun Management Center server is a Netra platform, the agent package, **SUNWesnta**, is installed as well as **SUNWesnts** and **SUNWesnti**. See TABLE 1-1.

- **SUNWesnti** - Netra agent and server common installation package
Provides scripts and Java class files to support Graphical User Interface (GUI) setup, Agent update and add-on installation and removal.

TABLE 1-1 Summary of Package Deployment

Server	Packages
Non Netra	SUNWesnts, SUNWesnti
Netra Server	SUNWesnts, SUNWesnta, SUNWesnti
Netra Agent	SUNWesnta, SUNWesnti

Note – Do not use **pkgadd** to install these packages. Instead, use the installation scripts as described in Chapter 3.

Supported Systems and Environments

The Netra systems and operating environments supported in this release are shown in TABLE 1-2.

TABLE 1-2 Netra Servers and Solaris Operating Environments Supported in This Release

Server	Solaris 2.6‡	Solaris 7 (32-bit and 64-bit versions)§	Solaris 8	Solaris 9
Sun Netra t 112x server*	✓	✓	✓	
Sun Netra t 140x server	✓	✓	✓	✓
Sun Netra t1 Model 10x server	✓	✓	✓	
Sun Netra T1 server			✓	✓
Sun Netra X1 server			✓	✓
Sun Fire V100 server			✓	✓
Sun Netra 20 server†			✓	✓
Sun Fire V120 and Netra 120 server			✓	✓
Sun Fire V1280 and Netra 1280 server			✓	✓

* Note the considerations described in Chapter 2.

† The Netra 20 server was originally called the Netra T4 server.

‡ Only the Sun Management Center Agent will run on Solaris 2.6.

§ Only the Sun Management Center Agent will run on Solaris 7.

Recommended Patches

There are recommended Solaris software patches available for the Sun Management Center 3.5 application. You must install all the patches required for your operating environment before installing the Sun Management Center 3.5 software and this add-on.

If you have a Sun service contract, you can download the patches from the following web site:

<http://sunsolve.sun.com>

You can also download the patches from the Sun Management Center product web site:

<http://www.sun.com>

For more information about the patches required for Sun Management Center 3.5 software, see the *Sun Management Center 3.5 Software Release Notes*.

Unsupported Add-ons

The Dynamic Reconfiguration (DR) add-on included in the Sun Management Center product does not work on Netra server systems. Therefore, do not load the Dynamic Reconfiguration (DR) software on Netra and Sun Fire agents supported by this add-on.

Preparing for Installation

There are two methods of installation, depending on whether you have received the software on a CD or have downloaded from the Sun Management Center web site.

The Netra server system packages are installed as part of the Sun Management Center installation procedures. Before beginning the installation process, you should know which Netra server systems in your network will function as servers and consoles, and which systems will be monitored by the servers and consoles.

For Sun Management Center software installation instructions, please refer to the *Sun Management Center Software User's Guide* and the *Sun Management Center Software Release Notes*, or consult the Sun Management Center web site for instructions:

<http://www.sun.com/sunmanagementcenter>

Before installing the Sun Management Center modules, make sure that the system where the package is being installed has sufficient disk space. The table below shows the disk space requirements for the Netra and Sun Fire-specific packages.

TABLE 1-3 Approximate Disk Space Requirements

Component	Netra Module
Agent package	5 Mbytes
Server package	4 Mbytes

Platform-Specific Considerations

This chapter explains specific system considerations, requirements and limitations that apply when installing and using Sun Management Center on Netra systems.

The chapter contains the following sections:

- “Alarms Notifications” on page 6
- “Netra t 1120/1125 Considerations” on page 8
- “Sun Fire V1280/Netra 1280 Considerations” on page 11

Note – There are additional specific considerations for the Netra t 1120/1125 and the Sun Fire V1280/Netra 1280 servers. See “Netra t 1120/1125 Considerations” on page 8 and “Sun Fire V1280/Netra 1280 Considerations” on page 11 for further information.

Alarms Notifications

You must install the Netra-specific alarms software and other platform-specific packages to ensure that the complete functionality of the Sun Management Center Supplement for Netra Servers is available. If this software is not installed, rule rcr4u228 will trigger a critical alarm, and the Netra-specific alarms will not be available.

Rule rcr4u228 supports a single parameter that enables you to specify whether an alarm should be raised when this software has not been installed. Refer to FIGURE 2-1.

If this alarm is triggered, you must re-install the alarms or other prerequisite software as described in the appropriate *Installation Guide* as listed in the Preface.

Note – The `tsalarms` software (Netra t 1120/1125) is referred to within Sun Management Center as LOM.

This rule supports a single parameter that enables you to specify whether you want an alarm to be raised on missing alarms and other platform-specific packages.

You can set the parameter using the Alarm tab of the Attribute Editor. Launch this by right-clicking on the Module Status property in the System table (refer to FIGURE 2-1), as described in chapter 9 of the *Sun Management Center 3.5 Users Guide*.

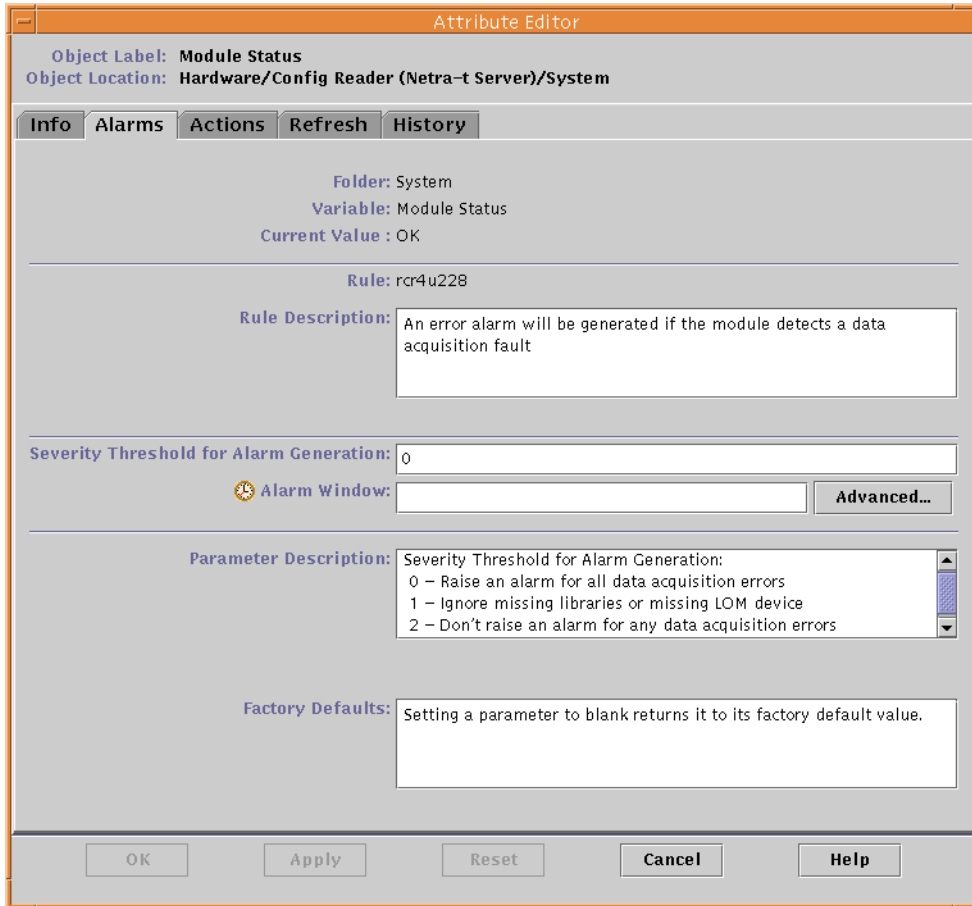


FIGURE 2-1 Setting the Rule rcr4u228 Parameter

Known Limitations of Alarms Notifications For Netra Servers

Lights Out Management (LOM) Reporting

The LOM event log lists the oldest event as `event(0)`.

Power Supply Reporting

On Netra servers, power supplies (PSUs) are checked only internally for integrity. A loss of input power is reported as such, but the PSUs are flagged as OK because they do not actually have a fault themselves. There is no differentiation between AC and DC power supplies.

Netra t 1120/1125 Considerations

This section contains considerations relating specifically to the Netra t 1120/1125.

Checking the OpenBoot PROM

Some Netra t 1120 and Netra t 1125 systems require an upgrade to the OpenBoot PROM. If the Sun Management Center extension for Netra servers is installed on a system that requires such an upgrade, significant functionality will be unavailable, including the physical and logical hardware views, or the platform will be misidentified as an Ultra 60 workstation.

If the physical and logical hardware views are not available on a Netra t 1120 or 1125, or the platform is misidentified as an Ultra 60 workstation, check the OpenBoot PROM as described below to ensure that the correct version is used and that it is configured correctly.

▼ To Check the OpenBoot PROM

- As root, type:

```
# eeprom banner-name
```

- If the result is:

```
banner-name=Netra t 1120/1125
```

you need take no further action and can proceed directly to the installation process as described in Chapter 3.

- If the result is:

```
banner-name=<message>
```

where <message> can be anything else, including nothing at all, type:

```
# eeprom banner-name='Netra t 1120/1125'  
# reboot
```

You must restart the system as shown before installing Sun Management Center as described in Chapter 3.

- If the result is:

```
banner-name: data not available
```

you must upgrade the PROM. Refer to the documentation accompanying the system for instructions, or contact your local Sun representative.

Known Limitations For The Netra t 1120/1125

PSU Fan Status Reporting

The status of the PSU fans is reported as OK when the tsalarms software has been configured to ignore the status of the PSU fans.

You should check the file `/kernel/drv/tsalarm.conf`. If there is a line in this file reading `monvalidmask=255`, the PSU fans will be monitored correctly. If there is no such line in the file, or the line exists but the number is different, change or add the line to read `monvalidmask=255`. A reboot or `modunload(1M)` and then `modload(1M)` is required for the change to become effective. See `tsalarm(7D)`.

Note – On early Netra t 1120/1125 systems, the PSU fan status is not monitored. For these systems, setting `tsalarm.conf` as described above can cause the PSU fans to be reported as faulty. If, on setting `tsalarm.conf` as described above, both PSU fans are reported as faulty and the fans are visibly spinning, it is likely that you have an older Netra t 1120/1125. You should set `tsalarm.conf` back to its previous settings. In this case, the PSU fans are always reported by Sun Management Center as OK.

Sun Fire V1280/Netra 1280 Considerations

This section contains considerations relating specifically to the Sun Fire V1280/Netra 1280 server.

Known Limitations For The Sun Fire V1280/ Netra 1280

Sun Management Center FRUID Information Updates Are Slow

The implementation for the Sun Fire V1280/Netra 1280 retrieves FRUID information from the Sun Fire V1280/Netra 1280 service controller using a communication channel that has limited bandwidth. The implementation makes use of a caching mechanism that retrieves this information periodically once startup is complete. During startup, the FRUID information might not yet be available, in which case the relevant information will appear as "Reading...". The time to complete retrieval of all FRUID information for the entire platform depends on the configuration of the platform, and might take up to two hours.

IO Devices and IO Controllers Tables Are Handled Differently From Other Platforms

The Sun Fire V1280/Netra 1280 implementation differs from other platform implementations in the following ways:

- The IO Controllers table is not used.
- The IO Devices table is used to list PCI cards but the disk, tape and network count attributes are not used.
- External devices, such as disks and tapes that are not physically in the Sun Fire V1280/Netra 1280 chassis, are not monitored by the add-on.

Hardware Information is Not Available While Dynamic Reconfiguration is in Progress

See the *Sun Fire V1280/Netra 1280 System Administration Guide* for details of the command line interface for dynamic reconfiguration. The dynamic reconfiguration add-on included in the Sun Management Center product is not supported on the Sun Fire V1280/Netra 1280 server.

The implementation for Sun Fire V1280/Netra 1280 retrieves hardware status information from the Sun Fire V1280/Netra 1280 service controller using a communication channel that can only have one request pending at any time. This communication channel is used both for dynamic reconfiguration requests and hardware status requests, so no hardware status information is available during reconfiguration.

When the dynamic reconfiguration request completes, the communication channel is available again and the Sun Management Center browser, logical and physical views will be displayed again.

A Built-in Tape Drive Fails to Appear in Sun Management Center 3.5 Views

Solaris loads and unloads device drivers dynamically when they are needed. If the tape device driver is not loaded when the agent queries the underlying Solaris instrumentation interfaces, Sun Management Center will not find the tape drive.

Installing and Setting Up the Software

This chapter provides information about the installation process to supplement that in the *Sun Management Center 3.5 User's Guide*.

The chapter contains the following sections:

- “About the Installation Process” on page 13
- “About the Setup Script” on page 14

About the Installation Process

You run the same Sun Management Center installation program to install or upgrade any Sun Management Center component on any system. Following installation, you must run a setup script (referred to as Setup) to configure the software properly. See also “Preparing for Installation” on page 4.

The installation program provides an interactive list of questions that guides you through the installation procedure. When you run the installation program, it checks the system hardware and software environment. If it does not find a previously installed version of Sun Management Center software, the installation program prompts you to choose whether to install the latest Sun Management Center core packages and add-on products. If the installation program finds any previously installed Netra server packages, it asks you if you want to preserve any existing data.

There are two ways to run the installation script. You can use either the traditional installation script, `es-inst`, or the new GUI Install feature, `es-guiinst`. The installation method you use determines which setup script automatically runs afterward (for example, if you used the GUI Install program for installation, `es-guisetup` runs by default).

Note – When running the `es-inst` script, enter `y` when you are prompted to add Netra.

Note – Sun Management Center packages are treated differently from Netra server packages. The installation program does not automatically update the former. To update core packages, you must apply the appropriate patches as discussed in the *Sun Management Center 3.5 Release Notes*.

For complete Sun Management Center 3.5 core software installation instructions, refer to the documentation provided with your Sun Management Center 3.5 media, or consult the Sun Management Center 3.5 web site:

<http://www.sun.com/sunmanagementcenter>

About the Setup Script

After the Sun Management Center packages are installed, the installation program asks if you want to run Setup. You must run Setup to configure the newly installed software before you can use it. You can run Setup immediately after installation by answering Yes [`y`] to the installation program prompt.

There are two ways to run the setup script. You can use either the traditional setup script, `es-setup`, or the new GUI Setup feature, `es-guisetup`. The choice of default setup script is dependent on the installation method you used for the Sun Management Center packages. For example, if you used the GUI Install program for installation, `es-guisetup` runs by default.

You can run the setup script at a later time by going to the Sun Management Center 3.5 directory `/opt/SUNWsymon/sbin` and typing either `./es-setup`, or `./es-guisetup`.

Note – If you choose not to start Setup automatically after installation, you can choose which method of Setup to use when you run the setup script later. Refer to the *Sun Management Center 3.5 User's Guide* for more information on these two methods.

GUI Setup

The GUI Setup application is new to Sun Management Center. This application enables you to set up the add-on software for Netra servers through the GUI. For more information about the GUI Setup application, refer to the *Sun Management Center 3.5 User's Guide*.

Should I Run Setup Now or Later?

How long Setup takes to configure newly installed Sun Management Center components depends on what components you have installed. See TABLE 3-1 for details.

TABLE 3-1 Time Required by Setup

If You have Installed This Component...	Setup Takes...
Agent only	Under one minute
Console only	Under one minute
Server only	Twenty minutes, approximately. If this is a first-time install of Sun Management Center 3.5 server components, the setup script prompts you to reboot the system before configuring the software.
Combination of components	Add up the times required for the individual components.

Preparing to Install the Localization Packages

If you are currently using a localized environment installed from an earlier release of Sun Management Center software, you need to remove the older localization packages manually before installing the newer versions included with this release. The following table describes the localization packages.

TABLE 3-2 Localization Packages to Be Removed

Package Name	Description
SUNWjesns	Japanese Sun Management Center Server Layer for Netra Servers
SUNWkesns	Korean Sun Management Center Server Layer for Netra Servers
SUNWcesns	Simplified Chinese Sun Management Center Server Layer for Netra Servers
SUNWhesns	Traditional Chinese Sun Management Center Server Layer for Netra Servers

Note – You only need to remove these packages if you have an older version of Sun Management Center software installed. The Sun Management Center 3.0 software contains only the following localization packages: Japanese, Korean, and Simplified and Traditional Chinese.

Removing the Old Localization Packages

1. **Check whether you have any of the localization packages installed. The packages are listed in TABLE 3-2. Type the following, substituting the names of the localization packages for *package_name*. If you have multiple localization packages, type the package names on the same line and separate them with spaces.**

```
% pkginfo package_name package_name
```

If the old localization packages are not installed, your system returns an error message. This means you are ready to install the new packages. If your system does not return an error message, you need to remove the old packages as described in the next step.

2. Log in as superuser and type the following command, substituting the name of the package you want to remove for *package_name*:

```
# pkgrm package_name
```

Installing the New Localization Packages

Refer to the *Sun Management Center 3.5 Installation and Configuration Guide* for information about how to install the new localization packages.

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