



Sun™ Management Center 4.0 Version 1 Add-on Software Supplement for Netra™ CT 900 Systems

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Preface

The *Sun™ Management Center 4.0 Version 1 Supplement for Netra™ CT 900 Systems* provides instructions on how to install, configure, and use Sun Management Center software for the Netra CT 900 system. The document is intended for system administrators who install and use Sun Management Center software to monitor and manage the Netra CT 900 system.

How This Book Is Organized

[Chapter 1](#) introduces Sun Management Center software for the Netra CT 900 System

[Chapter 2](#) describes how to install, setup, start, stop, uninstall and configure Sun Management Center software for Netra CT 900 system. Use this chapter with the *Sun Management Center Installation and Configuration Guide*.

[Chapter 3](#) describes Browser Details View and Hardware View of Netra CT 900.

[Appendix A](#) describes the abbreviation and mnemonics used in this book.

[Appendix B](#) describes the Sun Management Center alarm rules used by the Netra CT 900 add-on components.

[Appendix C](#) describes the impact of Netra CT 900 ShMM failover on Netra CT 900 add-on.

Using UNIX Commands

This document might not contain information on basic UNIX® commands and procedures such as shutting down the system, booting the system, and configuring devices. Refer to the following for this information:

- Software documentation that you received with your system
- Solaris™ Operating System documentation, which is at

<http://docs.sun.com>

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. Replace command-line variables with real names or values.	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. To delete a file, type <code>rm filename</code> .

* The settings on your browser might differ from these settings.

Related Documentation

Application	Title
Late-breaking news	<i>Sun Management Center Release Notes</i>
Installing and configuring Sun Management Center software	<i>Sun Management Center Installation and Configuration Guide</i>
Using Sun Management Center software	<i>Sun Management Center User's Guide</i>
Netra CT 900 platform	<i>Netra CT 900 Server Product Notes</i> <i>Netra CT 900 Server Getting Started Guide</i> <i>Netra CT 900 Server Installation Guide</i> <i>Netra CT 900 Server Administration and Reference Manual</i>

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Before You Read This Book

Read this supplement after reading the Sun Management Center Installation and Configuration Guide, which provides instructions for installing and configuring Sun Management Center software, and the Sun Management Center User's Guide, which provides instructions for using Sun Management Center software.

Note – For the latest information about this product, go to the Sun Management Center Web site at <http://www.sun.com/sunmanagementcenter>.

Introduction

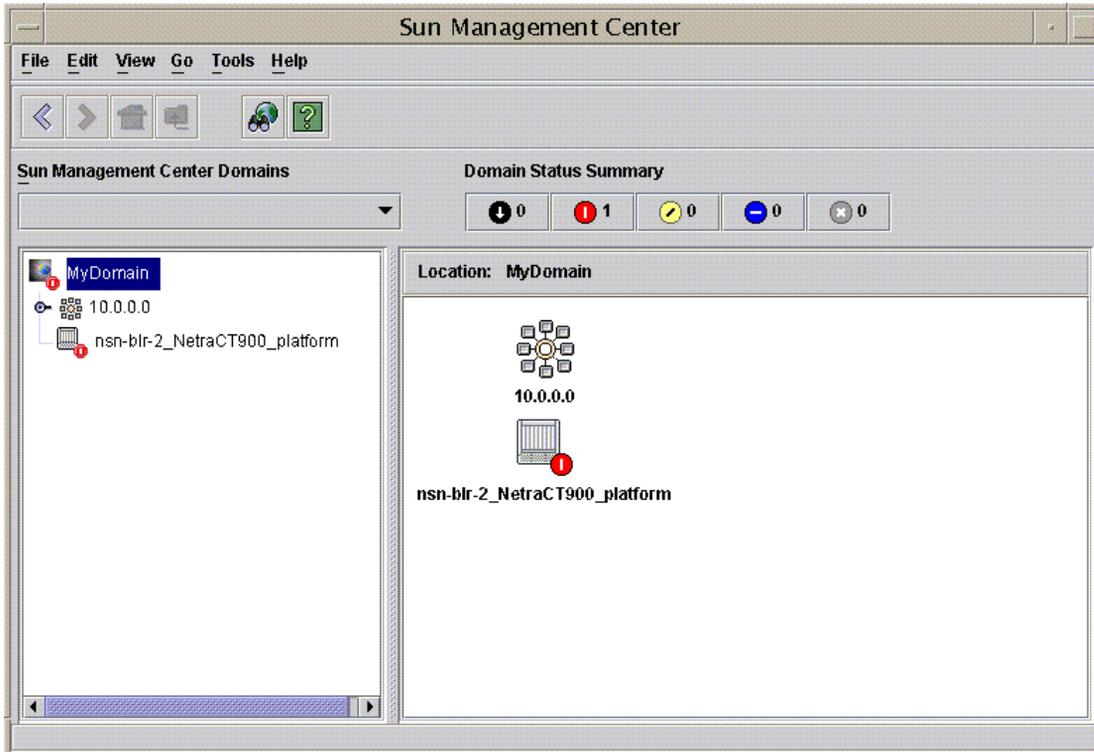
This chapter provides an introduction to the Sun Management Center add-on software.

Sun Management Center is an open, extensible system-monitoring and -management solution that uses Java™ and a variant of the Simple Network Management Protocol (SNMP) to provide integrated and comprehensive enterprise-wide management of Sun products and their subsystem, component, and peripheral devices.

The *Sun Management Center User's Guide* includes definitions, explanations, and diagrams that clarify the Sun Management Center architecture. Review that document whenever you have questions about how consoles, servers, agents, domains, and modules interact.

The Netra CT 900 add-on software helps monitor and manage CT 900 ATCA chassis. The User can view and modify hotswap state of all FRUs in chassis. The User can view all information on all sensors of the chassis i.e. sensor tag and its location on chassis, sensor reading, threshold values etc. SunMC alarms are raised based on hotswap state and sensor reading. Following figure shows the SunMC topology object of Netra CT 900 chassis.

FIGURE 1-1 Domain View Showing Platform Agent Icons



The Netra CT 900 add-on can be installed on any SPARC processor based system. The OS supported are Solaris 9 and 10. Solaris 10 is strongly recommended.

The Netra CT900 add-on 4.0-v1 is qualified with SunManagement Center 3.6.1 and 4.0. It is qualified with ATCA Releases R3-RR, R3U1-RR and R3U1P1-RR. However ATCA R3U1P1-RR is the recommended version.

Netra CT 900 add-on 4.0-v1 is a single-instance module. To monitor multiple CT 900 chassis from a single Sun Management Center system, load the CT 900 add-on module instance on multiple platform agent instances.

Installation and Setup

This chapter describes how to install, set up, uninstall, reinstall, and reconfigure the Sun Management Center software for the Netra CT 900 chassis.

The Sun Management Center software is divided into:

- Base packages that provide the Sun Management Center infrastructure and basic support
- Add-on components that provide support for particular hardware platforms
- Licensed add-on products for additional features

The Netra CT 900 chassis support requires the Sun Management Center base packages and the Netra CT 900 add-on packages. The Sun Management Center Installation and Configuration Guide describes basic information about installing, setting up, starting, and stopping the Sun Management Center software. This chapter describes the processes specifically related to the Netra CT 900 chassis.



Caution – Use the installation scripts and the setup scripts provided with the Sun Management Center software. Do not manually add packages or manually change configuration files.

Your Sun Management Center scripts or Wizard panels might not display exactly the same messages in exactly the same sequence as the examples shown in this supplement. However, these examples show the basic messages you will receive in approximately the sequence you will receive them. Your actual installation and setup scripts depend on the add-on components you choose to install and other choices you make.

Obtaining the Software

The Netra CT 900 add-on software is not included as part of the core Sun Management Center software. It is available as a download from the web.

The Sun Management Center add-on software packages are provided as a zipped file on the software download sites:

<http://www.sun.com/software/download/>

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

If you do not see the listing for Sun Management Center under the “New Downloads”, tabs use the index under the “Downloads A-Z” tab¹ or use the “View by Category” tab and look in the “System Administration” section under “System Management”.

Netra CT 900 Add-on Specific Packages

Following table lists the Netra CT 900 add-on packages:

Package	Description
SUNWct900a package	Sun Management Center NetraCT900 Addon Agent
SUNWct900s package	Sun Management Center NetraCT900 Addon Server

1. Sun Management Center products may be listed under S for Sun Management.

Install and Setup Netra CT 900 Add-on Using CLI

1. Login as superuser on system which has SunMC 4.0 or 3.6.1 installed. The steps listed below assume SunMC 4.0.
2. Create a temporary directory.

```
# mkdir /tmp/download
```

3. Copy Netra CT 900 Add-on zip file to the directory.

```
# cp Sun_MC-4.0-v1-GA.zip /tmp/download
```

4. Unzip the files:

```
# unzip Sun_MC-4.0-v1-GA.zip
```

5. Execute Sun Management Center `es-inst` script to install and setup add-on

```
# /opt/SUNWsymon/sbin/es-inst -S /tmp/download/disk1/image
```

where `/opt` is the directory in which Sun Management Center is installed. Substitute the name of the actual directory if it is different on your system.

6. At this point the installation software will seek confirmation, type “y” to confirm.

```
The following Add-On Products are applicable for installation.
  Netra CT900 Config Reader
Do you want to select all the products (y|n|q) y
The following Add-On Products will be installed:
  Netra CT900 Config Reader
Do you want to proceed (y|n|q) y
```

7. After successful installation, the installation software will ask whether you wish to continue with Sun Management Center setup. Say yes to continue with setup.

```
You must perform setup before using Sun Management Center 4.0.  
Do you want to run setup now (y|n|q)y
```

8. The Netra CT 900 add-on software prompts for confirmation of setup, type “y” to continue with setup.

```
Setting up Addon[s]...  
To setup Config-Reader Netra CT900 platform module you need to  
provide Netra CT900 Shelf Manager IP address and its snmp agent  
port number.  
Do you want to setup Netra CT900 Config Reader module (y|n|q)y
```

9. The CT 900 add-on software will prompt for ShMM IP and snmp agent port on ShMM. Enter appropriate values.

```
Enter the IP address of Netra CT900 Shelf Manager :IP address  
Please wait, Pinging the host IP address.  
Host IP address is networked.  
Enter the SNMP Agent port of Netra CT900 Shelf Manager: 161
```

10. After the Netra CT 900 setup, Sun Management Center prompts for starting of Sun Management Center components, type y to start Sun Management Center.

```
Do you want to start Sun Management Center agent and server components now  
(y|n|q)y
```

11. At the end of successful setup, there will be a Netra CT 900 module instance loaded on the default platform agent instance.

Install and Setup Netra CT900 Add-on Using GUI

1. As superuser, start the Sun Management Center install wizard:

```
# /opt/SUNWsymon/sbin/es-guiinst
```

where /opt is the directory in which Sun Management Center is installed. Substitute the name of the actual directory if it is different on your system.

The Sun Management Center installation wizard will appear and guide you through the installation. The Welcome panel appears first. Click the Next button to move through the wizard. Use the Back button to make corrections by moving back through the wizard.

2. **Specify the source directory of the Netra CT 900 image to be installed (/tmp/download/disk1/image for example).**
3. **An overview panel showing list of installed products is shown. Click on Next to continue.**
4. **A panel showing list of products to be installed will appear. This list includes the Netra CT 900 Config Reader. Check the check box for installing the Netra CT 900 add-on and click Next to continue.**
5. **The installation wizard will check for available disk space and then show a confirmation panel. Click Next to continue.**

The installation will start. A progress bar will display installation progress. When installation is complete the Installation complete panel will appear providing the option to configure the software now or later.
6. **Installation complete panel is shown. You can continue with setup now by clicking on Next or choose to do setup later. Click on Next to continue with setup.**
7. **The Sun Management Center setup wizard appears and guides through the setup process for the software. The Overview panel appears first. Click the Next button to move through the wizard. Use the Back button to make corrections by moving back through the wizard.**

8. Review the list in the Stopping Components panel.

The Sun Management Center components must be stopped before the setup process can continue. The Advanced Setup Options panel appears if setup process for some of the add-on products installed has already been completed. The remaining add-on software can be set up now.

9. Select the Configure Add-ons option.

The add-on software that was recently installed but not yet set up is now set up.

10. Review the list of products in the Select Add-on panel.

The Select Add-on Products panel appears. All products newly installed on the system that will be set up are listed. You can also run setup again on any product that was previously set up.

11. Netra CT 900 will show up in this panel as newly installed add-on which will be setup now. Click Next to continue.

12. Netra CT900 add-on confirms that you want to setup the add-on. Say Yes and click Next to proceed.

13. An info panel appears showing the port that platform agent is configured to use. Click Next to proceed.

Netra CT900 Shelf Manager panel appears next.

14. Enter the ShMM IP and port correctly. Click Next to start setup.

The Setup progress panel appears. Once setup is done, Add-on Products Setup panel appears showing the list of add-ons that were successfully setup.

15. Check for NetraCT900 Config Reader in the list.

16. Click Next to start Sun Management Center components.

A panel listing Sun Management Center components to be started appears.

17. Choose the appropriate components and Click Next to start Sun Management Center components.

18. Sun Management Center components are started and list of started components is displayed. Check the list of started Sun Management Center components to ensure that all components have started successfully.

19. Click Close to exit GUI setup.

At the end of successful setup, there will be a CT900 module instance loaded on the default platform agent instance.

Note – The add-on can be setup along with Sun Management Center. Install Sun Management Center 3.6.1 or Sun Management Center 4.0. Install the Netra CT 900 add-on. Execute `/opt/SUNWsymon/sbin/es-setup` or `/opt/SUNWsymon/sbin/es-guisetup` to setup Sun Management Center and the CT 900 add-on.

Refer to <http://docs.sun.com/app/docs/doc/819-5418> for the *Sun Management Center 3.6.1 Installation and Configuration Guide* or <http://docs.sun.com/app/docs/doc/820-2215> for the *Sun Management Center 4.0 Installation and Configuration Guide*

Install and Setup Netra CT 900 Add-on Using AgentUpdate

AgentUpdate can be used for fresh installation of add-on on several agents. The Netra CT 900 add-on 4.0-v1 supports both Sun Management Center 3.6.1 and 4.0. Steps listed below assume Sun Management Center 4.0.

Pre-Requisite for Using AgentUpdate

Target hosts should be binded to Sun Management Center Server system and Sun Management Center agent 4.0 should be pre-installed. Agent should be running on target hosts and webserver should be running on Sun Management Center server machine. The Netra CT 900 add-on 4.0-v1 should be pre-installed on Sun Management Center server machine.

Create Agent Update Image On Server Machine

Agent Update Image can be created using either `es-imagetool` or `es-gui-imagetool`. Steps below use `es-imagetool`.

1. Execute the Sun Management Center `es-imagetool` script.

```
# /opt/SUNWsymon/sbin/es-imagetool
```

where `/opt` is the directory in which Sun Management Center is installed. Substitute the name of the actual directory if it is different on your system.

2. Type "y" to choose the add-on agent package option.

```
Do you want to upgrade components of Base Agent (y|n|q) n
Do you want to install/upgrade components of Addons (y|n|q) y
```

3. Enter the source directory of the Netra CT 900 image when prompted (`/tmp/download/disk1/image` for example).
4. Enter the image name when prompted (`CT 900-image` for example).
5. Type "y" or "n" to select an OS architecture for the image when prompted.

```
Supported OS-Arch combinations are:
sparc-sun-Solaris_9
sparc-sun-Solaris_10

Do you want to select ALL OS-Arch combinations (y|n|q) n

Do you want to create images for sparc-sun-Solaris_9 (y|n|q) n
Do you want to create images for sparc-sun-Solaris_10 (y|n|q) y
```

This will generate an image for SPARC Solaris 10.

6. Based on the source directory, `es-imagetool` lists the add-ons for which image will be created. Type "y" or "n" to select the desired add-ons.

```
The following Add-On Products are applicable for installation.
Netra CT 900 Config Reader
Select the products you want to install:
Netra CT 900 Config Reader (y|n|q) y
```

The Sun Management Center `es-imagetool` script will generate the image.

Note – For details on creation of install/update image for SunMC 3.6.1, refer to:

<http://docs.sun.com/app/docs/doc/819-5418/6n7gk6ine?a=view>, *To Create an Agent-Update Image Using es-imagetool*

<http://docs.sun.com/app/docs/doc/819-5418/6n7gk6inc?a=view>, *To Create an Agent-Update Image Using es-gui-imagetool*

For SunMC 4.0 , refer to <http://docs.sun.com/app/docs/doc/820-2215/feoqy?a=view>, *Creating Agent Installation and Update Images*

Once the agent update image is ready, the target agent can be updated using this image. This can done from CLI or from GUI.

Agent Update Using CLI

1. On the target host, execute the Sun Management Center `agent-update` script.

```
# /opt/SUNWsymon/base/bin/agent-update.bin -s ServerName -r 8080 -p CT900-image
```

where `/opt` is the directory in which Sun Management Center is installed. Substitute the name of the actual directory if it is different on your system.

2. Once `agent-update` succeeds, execute `es-setup.sh` on the target host to load the module on the default platform agent on that target host.

```
# /opt/SUNWsymon/addons/NetraCT900/sbin/es-setup.sh
```

3. Run `es-start -al` to start the platform agent and the Sun Management Center agent on the target hosts.

```
# /opt/SUNWsymon/sbin/es-start -al
```

Agent Update Using GUI

Note – Pre-requisite - The agent objects for target hosts should be created in GUI.

1. In Sun Management Center GUI, launch tools -> Manage Jobs
 - a. Create a new job.
 - b. Create a new task. Select **Agent Update** as Task Type. Select correct image file which was created using `es-imagetool`.
 - c. Select the targets for job execution and execute the job.
2. After successful completion of the job, execute `es-setup.sh` on the target host to load the module on the default platform agent on that target host.

```
# /opt/SUNWsymon/addons/NetraCT900/sbin/es-setup.sh
```

where `/opt` is the directory in which Sun Management Center is installed. Substitute the name of the actual directory if it is different on your system.

3. Run `es-start -al` to start the platform agent and Sun Management Center agent on the target hosts.

```
# /opt/SUNWsymon/sbin/es-start -al
```

Note – For more details on Agent-Update task creation, refer to <http://docs.sun.com/app/docs/doc/819-5417/6n7gj829a?a=view>, *To Create an Agent Update Task*

For both CLI and GUI, agent-update log can be found at `/var/opt/SUNWsymon/log/agent-update.log` at the target host system.

Uninstall Netra CT900 addon using CLI

1. As superuser, execute the Sun Management Center `es-uninst` script.

```
# /opt/SUNWsymon/sbin/es-uninst
```

where `/opt` is the directory in which Sun Management Center is installed. Substitute the name of the actual directory if it is different on your system.

The command shows currently installed Sun Management Center products and prompts you to choose which products you wish to uninstall.

2. Type **“y”** for Netra CT 900 Config Reader.

```
# /opt/SUNWsymon/sbin/es-uninst
This script will help you to uninstall the Sun Management Center
software.

Following Sun Management Center Products are installed:
-----
PRODUCT                                DEPENDENT PRODUCTS
-----
Production Environment                  All Addons
Sun Fire Platform Administration        None
Netra CT900 Config Reader              None

Do you want to uninstall Production Environment (y|n|q) n
Do you want to uninstall Sun Fire Platform Administration (y|n|q)
n
Do you want to uninstall Netra CT900 Config Reader (y|n|q) y
```

3. Type “y” to proceed with the uninstallation.

```
The following product[s] will be removed:  
Netra CT900 Config Reader.
```

```
Do you want to change selection (y|n|q) n  
Select Save Data to save all user and configuration data. Your data is  
saved and can be restored when you re-install Sun Management Center.  
Do you want to preserve data (y|n|q) n
```

```
Proceed with uninstall (y|n|q) y
```

After successful uninstallation, a message to that effect is displayed.

```
Status of uninstallation:
```

```
-----  
PRODUCT                                STATUS  
-----  
Netra CT900 Config Reader              Removed
```

Uninstall Netra CT 900 Add-on Using GUI

1. As superuser, execute the Sun Management Center `es-guiuninst` script.

```
# /opt/SUNWsymon/sbin/es-guiuninst
```

where `/opt` is the directory in which Sun Management Center is installed. Substitute the name of the actual directory if it is different on your system.

The Sun Management Center uninstallation wizard appears and guides through the uninstall process for the software. The Welcome panel appears first. Click the Next button to move through the wizard. Use the Back button to make corrections by moving back through the wizard.

2. Click the Next button to move from the Welcome panel to the Product selection panel.

3. Choose “Add-on Products only” and check the check-box for “Netra CT 900 Config Reader”.
4. Click Next to move from the Product selection panel to the Save data panel.
5. Decide whether you wish to save data and click next to move onto the Products Removal Panel.
6. Confirm that the Netra CT 900 is the only product listed in the Products to be uninstalled. Uninstallation starts.
7. Examine the Uninstall Summary and click Close to exit GUI uninstallation.

Setup CT 900 Add-on Module Instance On A Non-default Platform Agent Instance

The Netra CT 900 add-on 4.0-v1 is a single-instance module. To monitor n chassis from a single Sun Management Center system, load a module instance on n platform agent instances. This section discusses how to setup the Netra CT 900 add-on on a non-default platform instance.

1. As superuser, create a platform agent instance:

```
# /opt/SUNWsymon/sbin/es-platform -a InstanceName
```

where /opt is the directory in which Sun Management Center is installed. Substitute the name of the actual directory if it is different on your system.

The script will prompt for platform instance port, security seed and community string. Enter correct values.

2. Setup the new platform agent instance:

```
# sh /opt/SUNWsymon/addons/NetraCT900/sbin/es-setup.sh -I InstanceName
```

The script will prompt for the IP and port of the ShMM to be monitored.

3. Start the platform agent instance:

```
# sh /opt/SUNWsymon/sbin/es-start -y InstanceName
```

4. Start the Sun Management Center agent:

```
# sh /opt/SUNWsymon/sbin/es-start -a
```

Undo CT 900 Module Setup on Default Platform Agent Instance

1. As superuser, run the `es-setup.sh` script.

```
# /opt/SUNWsymon/addons/NetraCT900/sbin/es-setup.sh -u
```

where `/opt` is the directory in which Sun Management Center is installed. Substitute the name of the actual directory if it is different on your system.

2. Start the Sun Management Center agent.

```
# /opt/SUNWsymon/sbin/es-start -a
```

Undo CT 900 Module Setup On Non-default Platform Agent Instance

1. As superuser, run the `es-setup.sh` script.

```
# /opt/SUNWsymon/addons/NetraCT900/sbin/es-setup.sh -u -I InstanceName
```

where `/opt` is the directory in which Sun Management Center is installed. Substitute the name of the actual directory if it is different on your system.

2. Start the Sun Management Center agent.

```
# /opt/SUNWsymon/sbin/es-start -a
```

Load/Edit The CT 900 Add-on On Default Platform Agent After Unloading It From GUI

1. As superuser, execute **the es-setup.sh script and follow the instructions**.

```
# /opt/SUNWsymon/addons/NetraCT900/sbin/es-setup.sh
```

where /opt is the directory in which Sun Management Center is installed. Substitute the name of the actual directory if it is different on your system.

2. **Start the Sun Management Center agent and platform agent**.

```
# /opt/SUNWsymon/sbin/es-start -al
```

Reseed After Changing Platform Agent Port

During setup, Netra CT 900 add-on checks for the port configured for the Sun Management Center platform agent. If this port is busy/occupied, then the add-on prompts for a new port to be assigned for platform agent.

```
Checking Sun Management Center Platform Agent configuration.
Verifying port number: 161.

Warning, port 161 is currently in use.

You need to either pick a different port in range 1100-65535 or insure
that
port 161 is available when you next start Sun Management Center.
Do you still wish to use port 161? (y|n|q) n

Enter new Sun Management Center platform Agent port in range 1100-65535:
```

After a port change, the security key needs to be regenerated. This is a Sun Management Center requirement. Security keys are used for communication between server and agents. So after a new port is assigned for platform agent, Netra CT 900 prompts for a security password/string. This password/string is used to generate security key.

1. Select “y” to regenerate the security key when prompted:

```
The Sun Management Center security keys must be regenerated
because the agent port numbers used have been changed.
```

```
Do you want to regenerate the security keys now ? (y|n|q) y
```

```
Sun Management Center requires an encrypted security key for communication
between processes. The security key is generated based on a unique
password seed you provide. The same security key is used for the server
and all agents. You must ensure that you use the same seed for all the
machines you install.
```

```
Enter the seed to generate keys:
```

```
Re-enter the seed to confirm:
```

2. After this, Netra CT 900 continues with setup process, prompting for Shelf Manager IP and port.

Note – After reseeding, the Sun Management Center server needs to be restarted.

3. Stop and Start the Sun Management Center server.

```
# /opt/SUNWsymon/sbin/es-stop -S
# /opt/SUNWsymon/sbin/es-start -S
```

If Netra CT 900 objects have already been created in the Sun Management Center GUI, after reseeding, they need to be re-created or re-discovered to use the new platform agent port.

Preparing to Use Netra CT 900 Add-on

After the add-on has been installed and setup, configuration is required on the Netra CT 900 ShMM and Sun Management Center server machine, before the add-on can be used.

Trap generation

Netra CT900 ShMM and Sun Management Center trap agent server have to be configured for forwarding and receiving traps to respectively. Traps are used by Netra CT 900 add-on to refresh the data in Sun Management Center GUI and raise alarms.

Configure CT900 ShMM

1. **Telnet to ShMM of the chassis.**
2. **Modify the `/etc/snmpd.conf` on the active ShMM. Change the line.**

```
rocommunity public
to
rwcommunity public
```

This is required for the activation/deactivation of FRUs using the Netra CT 900 add-on.

3. Add the following line after the `rwcommunity` public entry.

```
trap2sink server IP public trap daemon port
```

where *server IP* is the IP of the system where Sun Management Center 3.6.1/4.0 server and CT 900 add-on have been installed and *trap daemon port* is the port on which Sun Management Center trap daemon runs. For example.

```
trap2sink 10.12.161.20 public 162
```

This is required to enable forwarding of traps from ShMM to Sun Management Center and raise alarms.

4. Reboot the ShMM.

5. After active ShMM is rebooted, backup ShMM becomes active.

6. Repeat the above steps for the now active ShMM.

Configure Sun Management Center Trap Agent

As superuser execute the following steps on Sun Management Center server machine

1. Open the `/opt/SUNWsymon/base/cfg/base-config.x` file and search for the trap daemon configuration section.

`/opt` is the directory in which Sun Management Center is installed. Substitute the name of the actual directory if it is different on your system.

2. Add the following line under Communication parameters of trap configuration section.

```
snmpRecvBufSize    = 256
```

If before modification it should look like this.

```
trap = { [ inherit security ]
#
# Communications Parameters
#
trapServer          = estraphost
snmpPort            = 162
description         = "Trap Handler"
```

After modification it should look like this.

```
trap = { [ inherit security ]
#
# Communications Parameters
#
trapServer          = estraphost
snmpPort            = 162
description         = "Trap Handler"
snmpRecvBufSize    = 256
```

This modification sets the SNMP receive buffer size to 256K. This is required since the Netra CT 900 chassis generates a large number of traps. The default SNMP buffer size of Sun Management Center trap daemon is 8k. This is insufficient to handle all the traps generated by the Netra CT 900 shelf and can therefore result in trap loss.

Increasing the buffer size ensures that traps are not missed by trap daemon.

3. Search for the platform configuration section in

`/opt/SUNWsymon/base/cfg/base-config.x` and make the same modification (i.e. increase the SNMP buffer size to 256 for platform agent).

4. Save the modified file and Stop and Start the Sun Management Center server.

```
# /opt/SUNWsymon/sbin/es-stop -S
# /opt/SUNWsymon/sbin/es-start -S
```

Logging Traps

As superuser, execute the following steps to log Netra CT 900 traps in the platform.log for debugging.

1. As superuser, enable the trap channel on platform agent using es-config.

```
# /opt/SUNWsymon/sbin/es-config -c platform:trap
```

where /opt is the directory in which Sun Management Center is installed. Substitute the name of the actual directory if it is different on your system.

2. Stop and Start Sun Management Center server.

```
# /opt/SUNWsymon/sbin/es-stop -S  
# /opt/SUNWsymon/sbin/es-start -S
```

Create A Netra CT 900 Chassis Topology Object

After the Netra CT 900 add-on has been installed and setup, its topology object can be created in Sun Management Center GUI.

1. Launch the Sun Management Center GUI.
2. Create a Netra CT 900 icon. This can be done in 2 ways
 - a. From GUI, use Edit->Create Object. The object type should be platform agent.
 - b. The icon can also be created using discovery from GUI.
3. Double click the icon and click on Module Manager tab. The CT900 module will be shown in loaded Modules list.
4. Click on Module Browser tab and it should show Config-ReaderCT900 under hardware modules category.

Netra CT 900 Browser Details and Hardware View

The Netra CT 900 add-on presents the following views of the Netra CT 900 chassis.

- Browser View
 - Logical View
 - Physical View
-

Browser View

The left side of the browser view shows the Netra CT 900 module with two tables under it, hotswap management and sensor monitoring.

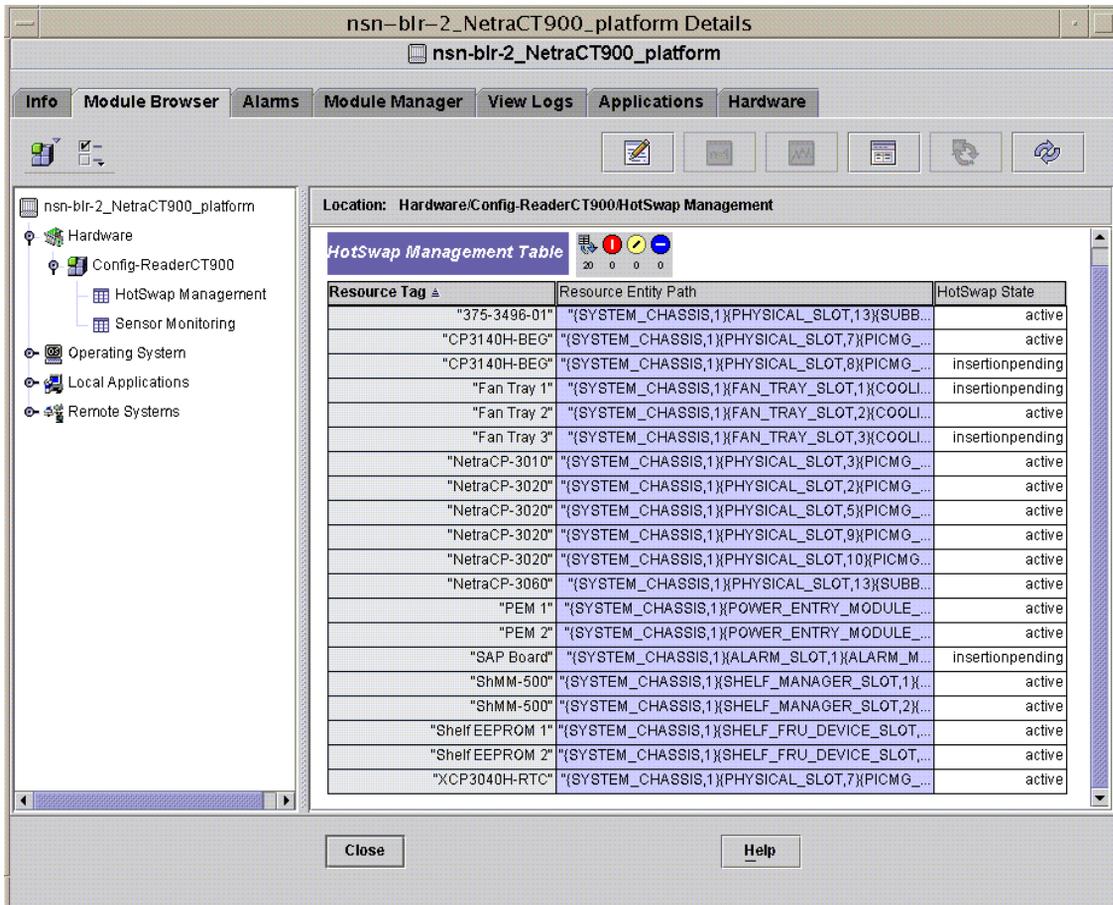
HotSwap Management

This table helps in monitoring and managing the hotswap state of all FRUs in the Netra CT 900 shelf. It can be used to view or change the hotswap state of a FRU from within the GUI.

Information shown includes "Resource Tag", "Resource Entity Path" and "HotSwap state" for all FRUs.

[FIGURE 3-1](#) shows the Hotswap Management Table.

FIGURE 3-1 Hotswap Management Table



The HotSwap table can also be used to modify the hotswap state of a FRU. When you click on the "HotSwap State" column it shows a drop-down of 2 values, active and inactive. Choose the appropriate value to modify the hotswap state.

Once a new value is chosen for hotswap state, Sun Management Center will pop-up a confirmation window. Click OK to modify the hotswap state, Cancel to retain the current the current hotswap state.

Sensor Monitoring

There are 3 tables, one each for Temperature, Voltage and Power Supply sensors respectively. These tables help monitor all temperature, voltage and power supply sensors on all resources in the Netra CT 900 shelf.

Information shown includes "Resource Tag", "Resource Entity Path", "Sensor Number", "Sensor Tag", "Sensor Value/Reading" and Critical, Major and Minor threshold values, both upper and lower.

FIGURE 3-2 shows the Sensor Monitoring Table.

FIGURE 3-2 Sensor Monitoring Table

The screenshot shows the Sun Management Center Browser interface for a Netra CT 900 platform. The 'Hardware' tab is selected, and the 'Sensor Monitoring' sub-tab is active. The main window displays a table of temperature sensors. The table has the following columns: Resource Tag, Resource Entity Path, SensorNum, SensorTag, SensorValue, Units, ThdLowCriticalValue, and ThdLowMajorValue. The table contains 18 rows of sensor data.

Resource Tag	Resource Entity Path	SensorNum	SensorTag	SensorValue	Units	ThdLowCriticalValue	ThdLowMajorValue
"NetraCP-3020..."	"{SYSTEM_CHASSI..."	4	"CPU Tcontrol"	2.2e1	degreeC		
"NetraCP-3020..."	"{SYSTEM_CHASSI..."	5	"Board Temp"	2.2e1	degreeC		
"NetraCP-3020..."	"{SYSTEM_CHASSI..."	6	"ADM Internal Te..."	2.8e1	degreeC		
"NetraCP-3020..."	"{SYSTEM_CHASSI..."	4	"CPU Tcontrol"	2.3e1	degreeC		
"NetraCP-3020..."	"{SYSTEM_CHASSI..."	5	"Board Temp"	2.2e1	degreeC		
"NetraCP-3020..."	"{SYSTEM_CHASSI..."	6	"ADM Internal Te..."	2.5e1	degreeC		
"NetraCP-3020..."	"{SYSTEM_CHASSI..."	4	"CPU Tcontrol"	2.3e1	degreeC		
"NetraCP-3020..."	"{SYSTEM_CHASSI..."	5	"Board Temp"	2.6e1	degreeC		
"NetraCP-3020..."	"{SYSTEM_CHASSI..."	6	"ADM Internal Te..."	2.8e1	degreeC		
"ShMM-500"	"{SYSTEM_CHASSI..."	2	"Local Temp"	2.5e1	degreeC		
"ShMM-500"	"{SYSTEM_CHASSI..."	2	"Local Temp"	2.2e1	degreeC		
"NetraCP-3010..."	"{SYSTEM_CHASSI..."	4	"CPU1 Temp"	5.5e1	degreeC		
"NetraCP-3010..."	"{SYSTEM_CHASSI..."	5	"CPU2 Temp"	-1.24e2	degreeC		
"NetraCP-3010..."	"{SYSTEM_CHASSI..."	6	"Inlet Temp"	2.6e1	degreeC		
"NetraCP-3020..."	"{SYSTEM_CHASSI..."	4	"CPU Tcontrol"	2.3e1	degreeC		
"NetraCP-3020..."	"{SYSTEM_CHASSI..."	5	"Board Temp"	2.4e1	degreeC		
"NetraCP-3020..."	"{SYSTEM_CHASSI..."	6	"ADM Internal Te..."	2.3e1	degreeC		
"NetraCP-3060..."	"{SYSTEM_CHASSI..."	5	"CPU Temp1"	5.1e1	degreeC		
"NetraCP-3060..."	"{SYSTEM_CHASSI..."	6	"CPU Temp2"	5.1e1	degreeC		

Hardware View

Click on the hardware tab in Sun Management Center Browser Details Window to view the Netra CT 900 chassis's:

- Hardware Summary
- Physical View
- Logical View

Hardware Summary

Hardware Summary of CT 900 chassis shows following properties and values

Machine:	ATCA
Platform:	CT900
Total disks:	--
Total memory:	--
Total tape devices:	--
Total processors:	--
ShMM IP:	<IP of monitored ShMM>

Since total disks, memory, tape devices and processors are irrelevant at chassis level, their value is "--"

Physical and Logical View

As per the Sun Management Center Physical View/Logical View (PV/LV) interface, all hardware objects covered in PV/LV have to be arranged in a tree hierarchy.

For the Netra CT 900 add-on, all FRUs are shown as hardware objects in PV/LV. Each of these hardware objects has following properties and their values shown in PV/LV.

"Resource Tag", "Resource Entity Path" and "HotSwap state"

The root of the tree is system object. The system object has a child named frus. All FRUs of the CT 900, except AMCs, are children of the "frus" object. So a FRU is identified by PV/LV as system.frus.<FRU Id>. AMCs are represented as children of the hosting ATCA blade. So an AMC is identified by PV/LV as system.frus.<FRU Id of parent blade>.<AMC Id>

Physical View

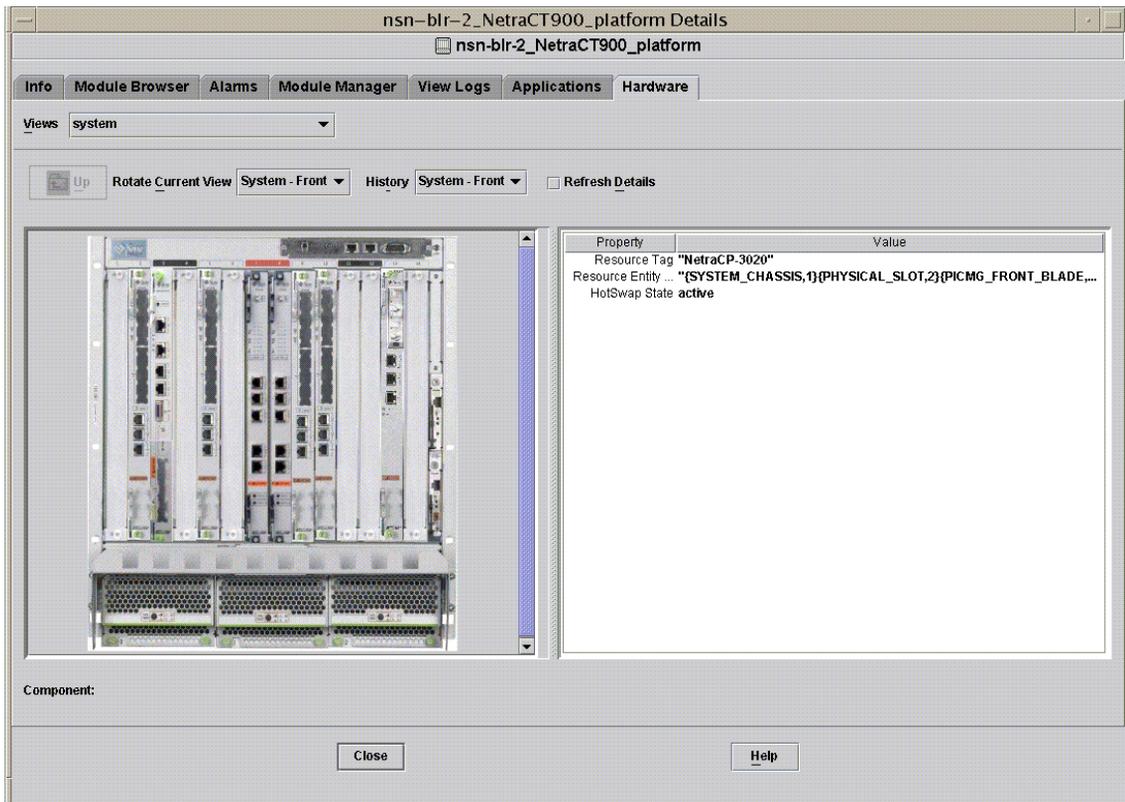
Front and Rear physical views of the Netra CT 900 are supported. Front view shows CT 900 chassis front image with front-end FRUs.

Following FRUs are supported in front view

- ATCA blades(CP3010, CP3020, CP3060, CP3220, CP3260)
- 1G switch (CP3140) / 10G switch (CP3240)
- AMCs
- ShMMs
- Fans
- Alarm Panel

FIGURE 3-3 shows the front Physical View.

FIGURE 3-3 Front Physical View

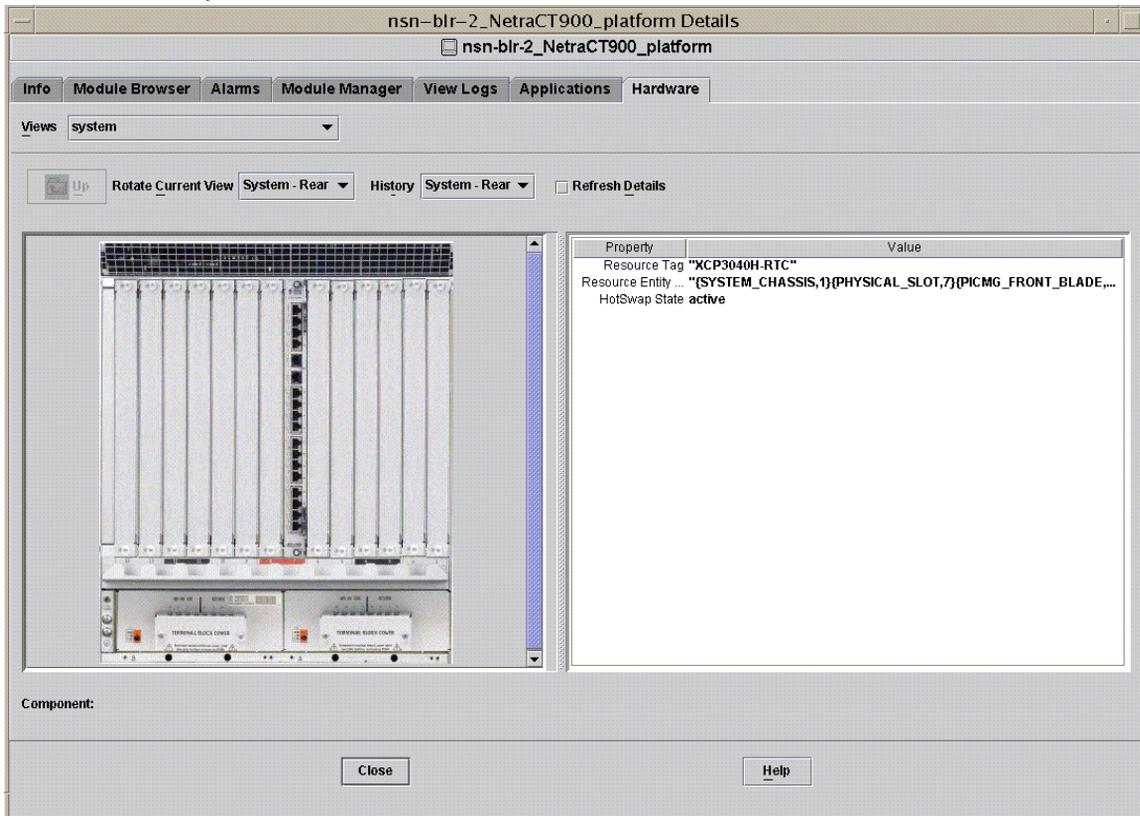


Rear physical view shows CT 900 chassis rear image with rear-end FRUs. The following FRUs are supported in rear view

- RTMs and ARTM (CP32X0-RTM-HDD)
- PEMs

FIGURE 3-4 shows the rear Physical View.

FIGURE 3-4 Rear Physical View



Empty slots in CT 900 chassis are shown as filler images. Moving mouse over a filler image shows the properties and values of system object. Moving mouse over a filler image of AMC shows the properties and values of parent ATCA blade.

All FRUs other than the previous mentioned supported FRUs are unrecognized (real images of these FRUs cannot be shown in PV). Unrecognized FRUs are handled as follows in PV:

- A general blade image is shown for an unrecognized ATCA blade.
- A general switch image is shown for an unrecognized switch.
- Since a general image is shown for unrecognized blades and switches, any child AMCs of the unrecognized blade/switch are not shown in PV.
- A general RTM image is shown for an unrecognized blade's or switch's RTM
- A general ARTM image is shown for an unrecognized ARTM.

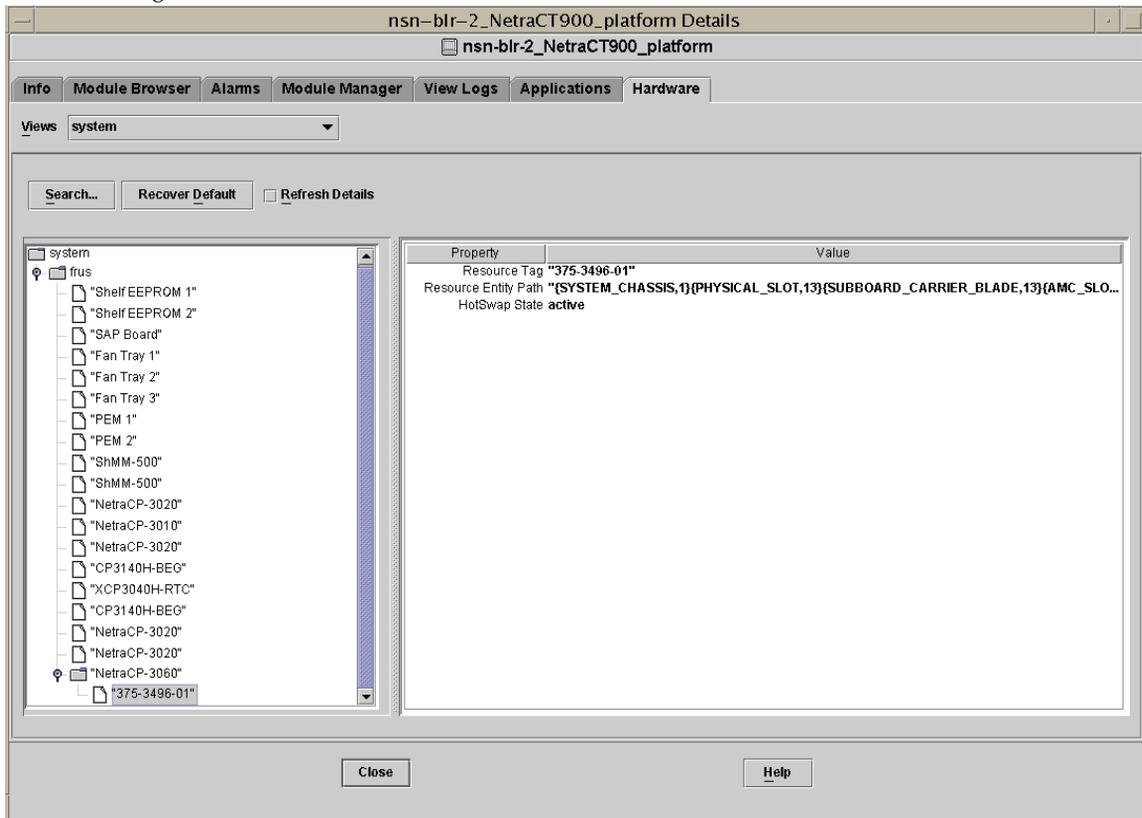
Logical View

Logical View provides Netra CT 900 FRU details in a tree-form. The logical view shows CT 900 FRUs as per the hardware tree hierarchy explained above. Mouse click on a FRU icon shows its properties and values in properties window. All FRUs supported in Physical View are supported in Logical View as well.

Unrecognized FRUs have no impact on Logical View. They are shown just like supported FRUs.

FIGURE 3-5 shows the Logical View.

FIGURE 3-5 Logical View



Abbreviations and Mnemonics

This appendix contains abbreviation and Mnemonic information.

Abbreviations/Mnemonics

TABLE A-1 Abbreviations/Mnemonics

Abbreviation	Meaning
ATCA	Advanced Telecom Computing Architecture
PV/LV	Physical View/ Logical View
ShMM	Shelf Manager Mezzanine Module
FRU	Field Replaceable Unit
PEM	Power Entry Module
RTM	Rear Transition Module
ARTM	Advanced Rear Transition Module
AMC	Advanced Mezzanine Card

Sun Management Center Alarms

This appendix contains Sun Management Center Alarms information.

SunMC Alarms

Netra CT 900 add-on supports Sun Management Center alarms.

There are 2 alarm categories.

- Alarm is raised based on the hotswap state of a FRU. The alarm raised is Critical for "undefined", Alert for "inactive" and Caution for "NotPresent" hotswap state. HotSwap State of "undefined" indicates that resource is not in a valid hotswap state. It is also used to indicate resource failure.
- Alarm is raised when sensor reading crosses either upper or lower threshold value. The alarm is Critical, Alert and Caution for crossed threshold value Critical, Major and Minor respectively.

ShMM Failover

This appendix contains ShMM Failover information.

ShMM Failover

If the currently active ShMM on a Netra CT 900 system fails, ShMM failover occurs and the backup ShMM will take over as the new active ShMM. A failover can also be forced by executing command `clia switchover` at the command prompt of currently active ShMM.

When failover happens, the backup ShMM takes over as new active ShMM. There is a transition period for this take over. During this transition period, the CT 900 add-on GUI is unresponsive as the ShMM to which it connects is in "getting ready" state. Trying to browse thru the CT 900 add-on tables using SunMC Module Browser tab, may give messages like "Unable to load console" or "Unable to load table". After the transition for ShMM is done, CT 900 add-on is able to connect to ShMM and extract required info for display in GUI.

This whole process from GUI perspective, takes 3-4 minutes. After this time, GUI shows information from ShMM correctly.

