Sun™ SNMP Management Agent Release Notes, Version 1.6.1

Sun Microsystems, Inc.
www.sun.com

Part No. 821-0654-10
September 2009, Revision A

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Sun SNMP Management Agent Release Notes, Version 1.6.1

This document contains release- and platform-specific information for the Sun™ Simple Network Management Protocol (SNMP) Management Agent software, Version 1.6.1, including procedures for installing and uninstalling the software. Use this document with the *Sun SNMP Management Agent Administration Guide for Sun Supported Servers, Version 1.6.1 at a Minimum*.

This document contains the following sections:

- "What's New" on page 1
- "System Requirements" on page 2
- "Installing the Software" on page 4
- "Uninstalling the Software" on page 11
- "Known Issues" on page 12

What's New

The following summarizes the operational changes from the Version 1.6 software to the Version 1.6.1 software:

- Solaris 10 Operating System (OS) is the minimum required OS.
- SNMPv3 encryption
- Improved `agentx` trap generation
- The following MIB tables have been removed:
  - `sunPlatFanTable`
  - `sunPlatBatteryTable`
  - `sunPlatPhysicalTable`

System Requirements

Disk Space Requirements

At least 10 Mbytes must be available on the server.

Solaris Operating System

Note – Sun SNMP Management Agent, Version 1.6.1, requires Solaris OS 10 at a minimum. Earlier versions of Solaris OS are not supported.

Check the documentation for your platform for information about any other Solaris OS requirements.

Obtaining Solaris OS Packages

Required Solaris OS packages are available from the Solaris™ 10 Operating System DVD, under:

```
/cdrom/cdrom0/s0/Solaris_10/Product
```

These additional packages must be installed to enable support of the SNMP Management Agent. For a list of these packages refer to "Installation and Additional Required Packages" in the *Sun SNMP Management Agent Administration Guide for Sun Supported Servers*.

Solaris OS Patches

No patches are required at this time. To ensure the latest patch information, always go to SunSolve℠ for the latest set of patches for your product:

http://sunsolve.sun.com

Supported Platforms

The following table lists all platforms supported in this release with reference to documentation specific to that platform.

TABLE 1 Supported Platforms

Platform	Documentation URL
Netra™ 210 Server	http://docs.sun.com/app/docs/prod/n210.srvr#hic
Netra 240 Server	http://docs.sun.com/app/docs/prod/n240.srvr#hic
Netra 440 Server	http://docs.sun.com/app/docs/prod/n440.srvr#hic
Netra T2000 Server	http://docs.sun.com/app/docs/prod/nt2000.srvr#hic
Netra T5220 Server	http://docs.sun.com/app/docs/prod/nt5220.srvr#hic
Netra T5440 Server	http://docs.sun.com/app/docs/prod/nt5440.srvr#hic
Sun Blade™ T6300 Server Module	http://docs.sun.com/app/docs/prod/blade.t6300#hic
Sun Blade T6320 Server Module	http://docs.sun.com/app/docs/prod/blade.t6320#hic
Sun Blade T6340 Server Module	http://docs.sun.com/app/docs/prod/blade.t6340#hic
Sun Fire T1000 Server	http://docs.sun.com/app/docs/prod/sparc.t1k#hic
Sun Fire T2000 Server	http://docs.sun.com/app/docs/prod/sparc.t2k#hic
Sun Fire V125 Server	http://docs.sun.com/app/docs/prod/v125.srvr#hic
Sun Fire V210 and V240 Servers	http://docs.sun.com/app/docs/prod/v210.srvr#hic http://docs.sun.com/app/docs/prod/v240.srvr#hic
Sun Fire V215 and V245 Servers	http://docs.sun.com/app/docs/prod/v215.srvr#hic http://docs.sun.com/app/docs/prod/v245.srvr#hic
Sun Fire V250 Server	http://docs.sun.com/app/docs/prod/v250.srvr#hic
Sun Fire V440 Server	http://docs.sun.com/app/docs/prod/v440.srvr#hic
Sun Fire V445 Server	http://docs.sun.com/app/docs/prod/v445.srvr#hic
Sun SPARC® Enterprise T5120 and T5220 Servers	http://docs.sun.com/app/docs/prod/sparc.t5120#hic http://docs.sun.com/app/docs/prod/sparc.t5220#hic
Sun SPARC Enterprise T5140 and T5240 Servers	http://docs.sun.com/app/docs/prod/sparc.t5140#hic http://docs.sun.com/app/docs/prod/sparc.t5240#hic
Sun SPARC Enterprise T5440 Server	http://docs.sun.com/app/docs/prod/sparc.t5440#hic

Obtaining Installation Packages

Sun SNMP Version 1.6 software installation packages are supplied in the zip archive bundle `SNMP-1_6_1-GA.tar.Z`, at the following location:

`http://www.sun.com/download`

Always use the latest version of this file for installation. For information about installation, refer to "Installing the Software" on page 4.

Documentation

Sun SNMP Management Agent documentation can be found at:

`http://docs.sun.com/app/docs/prod/snmp.netra.16#hic`

Installing the Software

Required Packages

The installation packages in TABLE 2 and the additional required packages listed in TABLE 3 must be installed to enable support of the SNMP Management Agent. For information about obtaining these packages, refer to "Obtaining Installation Packages" on page 4.

Installation Packages

The following table lists all packages contained in the tar archive bundle.

TABLE 2 SNMP Management Agent Software Installation Package Descriptions

Package	Package Name	Function
SUNWespdl	Common Config Reader PCPDAQ Library	Framework for providing configuration information for Sun Blade™ T6300, Sun Fire T1000/T2000, and Netra™ T2000
SUNWescdl	Common Config Reader DAQ Library	Framework for providing configuration information
SUNWescpl	Common Config Reader Sun Fire V125/V210/V215/V240/V245 and Netra 240/210 platform support	Configuration reader platform support for the Sun Fire V125,V210,V215,V240,V245 and Netra 240/210
SUNWescfl	Common Config Reader Sun Fire V250 platform support	Configuration reader platform support for the Sun Fire V250
SUNWeschl	Common Config Reader Sun Fire V440/445 platform support	Configuration reader platform support for the Sun Fire V440/V445
SUNWescnl	Common Config Reader Netra 440/445 platform support	Configuration reader platform support for the Netra 440
SUNWeserl	Common Config Reader Sun Fire T1000 platform support	Configuration reader platform support for Sun Fire T1000
SUNWesonl	Common Config Reader T2000/Netra T2000 /Sun Blade T6300, T6320, T6340 and Sun SPARC Enterprise® T5120/T5120 T5140, T5240, T5440 platform support	Configuration reader platform support for Sun Fire T2000/Netra T2000/Sun Blade T6300, T6320, T6340 and SPARC Enterprise T5120/T5220, T5140, T5240, T5440
SUNWmasf	Sun SNMP Management Agent for Sun Fire, Netra, Sun Blade and Sun SPARC Enterprise systems	SNMP Agent common components
SUNWmasfr	Sun SNMP Management agent for Sun Fire, Netra, Sun Blade and Sun SPARC Enterprise systems	Startup and configuration scripts for the SNMP agent

Additional Required Packages

The packages listed in the following table must be installed to enable support of the SNMP Management Agent.

TABLE 3 SNMP Management Agent Additional Required Software Packages

Package	Package Name
SUNWpiclh	PICL Header Files (Usr)
SUNWpiclr	PICL Framework (Root)
SUNWpiclu	PICL Libraries, and Plug-in Modules (Usr)

To upgrade the software, you must remove the existing software before reinstalling the new version. For more information, refer to "Uninstalling the Software" on page 11.

Effects on System Files

A new startup file is created in /etc/init.d, as shown in the following table, with links to /etc/rc*n*.d.

TABLE 4 Startup Script

Component	Startup Script	Package Name	Package Description
Agent	masfd	SUNWmasfr	Configuration and startup script for SNMP agent

After installation, the following MIBs, supported by the agent, are located in the directory /opt/SUNWmasf/lib/mibs. All other MIBs in that directory are included for reference purposes.

TABLE 5 MIB Files

MIB	Function
ENTITY-MIB.txt	Describes physical and logical entities
RFC1155-SMI.txt	Defines additional object types used by other MIBS
RFC1213-MIB.txt	Models network interfaces (note, this agent only supports system part)
SUN-PLATFORM-MIB.txt	Extends the Entity MIB to provide additional information about hardware components

Installing the SNMP Software

This section describes the procedures for installing the monitoring software.

Before installing the software, ensure that:

- You have the requisite level of the Solaris OS installed on both the domain or target and the platform agent server. (See "Solaris Operating System" on page 2.)
- You have installed all the necessary patches (refer to "Solaris OS Patches" on page 2) and any additional essential packages (TABLE 3) not supplied as part of the SNMP software.
- If you are installing on a domain in an LDoms environment, you must install the software on the *control* domain.

When you are certain that your system meets all these requirements, you can proceed to install the SNMP software.

▼ Install the SNMP Agent

1. **Unzip the *SNMP-zip* file.**

```
$ zcat unzip SNMP-zip | tar xvf -
```

2. **Ensure you are the superuser before proceeding with installation.**

3. **Change to the directory where the zip file was extracted (at the root of the packages provided by the zip file).**

   If you want to start installation from a different directory, when using the `pkgadd`(1M) command you must specify the path of the root of the directory hierarchy where the files were extracted using the `-d` option (rather than `-d .` as shown in Step 4).

Caution – If you have installed Sun™ Management Center, you cannot run both Sun Management Center and this agent at the same time on any chip multithreaded (CMT) platform. Otherwise, you can skip to Step 5.

4. **Install the support for platform instrumentation by doing one of the following depending on your platform:**

   - Install the Sun Fire V125/V210/V215/V240/V245 and Netra 210/240 instrumentation.

```
# pkgadd -d . SUNWescdl SUNWescpl
```

- Install the Sun Fire V250 instrumentation.

```
# pkgadd -d . SUNWescdl SUNWescfl
```

- Install the Sun Fire V440 and V445 instrumentation.

```
# pkgadd -d . SUNWescdl SUNWeschl
```

- Install the Netra 440 instrumentation.

```
# pkgadd -d . SUNWescdl SUNWescnl
```

- Install the Sun Fire T1000 instrumentation.

```
# pkgadd -d . SUNWeserl SUNWespdl SUNWescdl
```

- Install the Sun Fire T2000, Netra T2000, Sun Blade T6300, T6320, T6340 and Sun SPARC Enterprise T5120/T5220, T5140, T5240, T5440 instrumentation.

```
# pkgadd -d . SUNWesonl SUNWespdl SUNWescdl
```

5. Install the SNMP agent.

```
# pkgadd -d . SUNWmasf SUNWmasfr
```

6. Ensure that the packages have been installed properly.

a. Display information for the installed packages using `pkginfo`. For example:

```
# pkginfo SUNWmasfr
system      SUNWmasfr     Sun SNMP Management Agent for Sun Fire and Netra Systems
```

b. Ensure that the following files now exist:

```
/etc/init.d/masfd
/etc/rc{0..2,S}.d/K40masfd
/etc/rc3.d/S80masfd
/opt/SUNWmasf/lib/mibs
```

c. Ensure that the agent is running, by using:

```
# netstat -anv | grep agent_port
```

For example:

```
# netstat -anv | grep 9000
      *.9000                                 Idle
```

You might experience a delay of up to 15 minutes before seeing the response to this `netstat` command.

▼ Configure the SNMP Agent

After installation, you must configure the agent before you attempt to start it. A full description of the configuration options for the SNMP agent is provided in the *Sun SNMP Management Agent Administration Guide for Sun Supported Servers*. Refer to the "Configuration Files" chapter.

Before using the agent, you must assign it a network port to use. In deciding which network port to use, consider:

- Whether other SNMP agents might be installed on the system
- Where management applications might attempt to discover SNMP agents

---

Note – Use a port other than 161 for SNMP access to the agent provided by this product to ensure that this port is available for use by other agents, such as `snmpdx`(1M) and Sun Management Center. The conventional port for SNMP access is port 161 for data. By default, the Solaris `snmpdx` daemon uses this port.

---

1. Configure the SNMP agent using the `/etc/opt/SUNWmasf/conf/snmpd.conf` file.

2. Set the port number by adding a line to the file in the form:

```
agentaddress     9161
```

This enables the agent to communicate on the port 9161. Make sure that the port you select is not currently in use by another application. If you are using SNMPv1 or SNMPv2c, no further configuration is required unless you want to use traps, in which case you must specify the trap destinations. Refer to the "Configuratin Files" chapter in the administration guide for more information.

▼ Start the SNMP Agent

1. **Restart the Platform Information and Control Library (PICL) daemon:**

```
# svcadm restart picl
```

2. **Start the SNMP agent:**

```
# /etc/init.d/masfd start
```

3. **Confirm that the agent is correctly running:**

```
# ps -ef | fgrep snmpd
```

You should see a line of the form:

```
root 29394  1 0 Feb 18 ?  4:11 /opt/SUNWmasf/sbin/snmpd
```

If you do not see this output, review the `/var/adm/messages` log file to locate any error messages from the agent. For more information on troubleshooting, see the "Troubleshooting" chapter in the *Sun SNMP Management Agent Administration Guide for Sun Supported Servers*.

On subsequent reboots, the agent starts automatically without any user intervention.

4. **Verify that the agent is running.**

Once the agent is fully operational, look in the `syslog` log file for a string similar to this:

```
NET-SNMP version 5.4.2.1
```

You might experience a delay of up to 15 minutes before the string appears in the file.

Uninstalling the Software

Generally, all that is required to uninstall SNMP is to use the `pkgrm`(1M) command to remove the packages you installed. This section specifies all the relevant files and links to remove for various platforms.

Uninstall the Software

Caution – If you have also installed Sun Management Center, remove only the SNMP-specific packages `SUNWmasfr` and `SUNWmasf`.

Do one of the following depending on your platform:

- Remove the Sun Fire V125/V210, V215, V240, V245, and Netra 210/240 platform agent packages from the platform agent server.

```
# pkgrm SUNWmasfr SUNWmasf SUNWescpl SUNWescdl
```

- Remove the Sun Fire V250 platform agent packages from the platform agent server.

```
# pkgrm SUNWmasfr SUNWmasf SUNWescfl SUNWescdl
```

- Remove the Sun Fire V440/V445 platform agent packages from the platform agent server.

```
# pkgrm SUNWmasfr SUNWmasf SUNWeschl SUNWescdl
```

- Remove the Netra 440 platform agent packages from the platform agent server.

```
# pkgrm SUNWmasfr SUNWmasf SUNWescnl SUNWescdl
```

- Remove the Sun Fire T1000 platform agent packages from the platform agent server.

```
# pkgrm SUNWmasfr SUNWmasf SUNWescdl SUNWespdl SUNWeserl
```

- Remove the Sun Fire T2000, Netra T2000, Sun Blade T6300, T6320, T6340 and Sun SPARC Enterprise T5120/T5220, T5140, T5240, T5440 platform agent packages from the platform agent server.

```
# pkgrm SUNWmasfr SUNWmasf SUNWescdl SUNWespdl SUNWesonl
```

Known Issues

This section contains general issues and specific bugs concerning the Sun SNMP Management Agent, Version 1.6 software.

General Issues

This section describes general known issues about this release of Sun SNMP Management Agent software that are broader than a specific bug number. Workarounds are provided where available.

Restart PICL Before Running SNMP

Before you run the SNMP daemon, restart the Platform Information and Control Library (PICL) daemon by typing:

```
# svcadm restart picl
```

Do Not Run SNMP MASF and Sun Management Center at the Same Time

On sun4v servers, running the SNMP MASF and the Sun Management Center software at the same time is not supported.

Bugs Affecting SNMP Management Agent 1.6.1 Software

This section summarizes the bugs that you might encounter when using this version of the software. The bug descriptions are in numerical order by bug ID. If a workaround is available, it is specified.

SNMP Tree Has No NEM Entities

Bug ID 6628809: On Sun Blade T6320 systems, the SNMP tree does not have entities for the Network Express Module (NEM) components.

Workaround: Use the `showfru` command to view these FRUs.

```
sc> showfru
```

Blade Service Processor Fails to Detect PCI-EM

Bug ID 6641519: When a PCI Express Module (PCI-EM) is unconfigured, it is deleted from the SNMP tree, and the slot is reported empty, even though module is still there physically. Conversely, when a PCI-EM is connected to the system, the SNMP tree does not show it, and the slot is reported empty, until the module is configured.

Workaround: Use the following Solaris OS `cfgadm`(1M) command to check the occupancy status of PCI-EMs.

```
# cfgadm -al | grep PCI-EM
```

Setting MASF SNMP Agent as Sub-Agent of SMA Causes Harmless Messages

Bug ID 6850760: When the MASF SNMP agent is configured as a sub-agent of SMA and started, you will see an error message on the console similar to this:

```
# Jun 10 12:46:07 dt88-192 snmpd[3258]: registering pdu failed: 263!
Jun 10 12:46:07 dt88-192 last message repeated 64 times
```

Workaround: You can safely ignore these error messages.