SunHSI/S™ 3.0 Release Notes

THE NETWORK IS THE COMPUTER™

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SunHSI/S 3.0 Release Notes

This document contains important information about the SunHSI/S™ hardware and software.

Note – For access to the Sun™ bug report database, and for information on how to get the latest patches and patch revisions, please visit the SunSolve[sm] website at `http://sunsolve.sun.com`.

Suggested Maximum Number of SunHSI/S Adapters Per System

The table below lists the suggested maximum number of SunHSI/S adapters per Sun™ system. These numbers were correct at the time of the printing of this document.

TABLE 1 Suggested Maximum Number of Adapters Per System

Sun System	Number of Adapters
SPARCstation™ 4, 5, 10, and 20	1
SPARCserver™ 6xx series	2
SPARCserver 1000/1000E	4
SPARCcenter™ 2000/2000E	4
Ultra™ 1	2
Ultra 2	2

TABLE 1 Suggested Maximum Number of Adapters Per System *(Continued)*

Sun System	Number of Adapters
Ultra 150	2
Sun Enterprise™ 3000/3500	8
Sun Enterprise 4000/4500/5000/5500	12
Sun Enterprise 6000/6500	16

Note – The SunHSI/S software has been tested on the Solaris™ 2.5.1, 2.6, and 7 operating environments.

Aggregate Network Speed

The *SunHSI/S 3.0 Installation and Administration Guide* (part number: 805-6941-10) indicates that each channel can operate at a maximum speed of 2.048Mbps, with an aggregate bandwidth for all four ports limited to 2.5Mbps. Due to hardware limitations, tests have shown that there is some performance degradation under severe network load and that there may be data corruption at network speeds over 1Mbps. We recommend that you use the SunHSI/S adapter at an aggregate bandwidth less than 1Mbps.

For more information, refer to Sun bug report numbers: 1215620, 1256946, and 4169715.

Performance on Enterprise Servers

The table below shows the SunHSI/S performance limitations on Sun Enterprise servers as tested in these sample configurations.

TABLE 2 SunHSI/S Performance on Enterprise Servers

System type	Number of Adapters in System	Total Number of Links	Maximum Configuration for Each Adapter
Sun Enterprise 6000	16	64	4 ports at 128Kbps/port
Sun Enterprise 6000	16	32	2 ports at 256Kbps/port
Sun Enterprise 5000	8	32	4 ports at 128Kbps/port

TABLE 2 SunHSI/S Performance on Enterprise Servers *(Continued)*

System type	Number of Adapters in System	Total Number of Links	Maximum Configuration for Each Adapter
Sun Enterprise 5000	12	48	4 ports at 64Kbps/port
Sun Enterprise 4000	8	32	4 ports at 128Kbps/port
Sun Enterprise 4000	12	48	4 ports at 64Kbps/port
Sun Enterprise 3000	4	16	4 ports at 128Kbps/port

Note – When you configure 2 ports per adapter, you must use port numbers 1 and 3 or 2 and 4.

In order to attain this performance, your system must operate the following versions of the Solaris operating environment: Solaris 2.5.1 Hardware: 8/97, 11/97, Solaris 2.6, and Solaris 7. You will not achieve this performance from the initial release of the Solaris 2.5.1 environment.

SunHSI/S Adapter is Not a Bootable Device

The OpenBoot™ PROM `show-nets` command mistakenly lists the SunHSI/S adapter as a bootable network device. The adapter is not a bootable device, and you cannot boot the Solaris operating environment over the SunHSI/S interface.

Refer to Sun bug report number 4154158 for more information.

Dynamic Reconfiguration Issues

The dynamic reconfiguration (DR) set of enhancements to the Solaris operating environment provide the capability of dynamically attaching and detaching system boards in certain Sun servers without halting the server. This section describes some dynamic reconfiguration issues with the SunHSI/S hardware and software.

The `cfgadm(1M)` command provides various administration operations helpful when configuring dynamic reconfiguration systems. The `cfgadm` unconfigure option performs hardware specific operations that remove hardware resources from the

system. If you fail to unconfigure a SunHSI/S adapter after using the `cfgadm` command, you cannot unconfigure the adapter again without first rebooting the system. For more information, refer to Sun bug report numbers 4178609 and 4182985.

The dynamic reconfiguration software has a known problem of not being able to suspend a device performing synchronous operations. Because the SunHSI/S adapter performs synchronous operations, you must stop all applications running on the adapter before using the dynamic reconfiguration software to suspend a SunHSI/S device. Refer to Sun bug report numbers 4175663 and 4175670 for more information.

If you have more than one SunHSI/S adapter in your system, stop all applications running on all SunHSI/S adapters before using the `cfgadm` command to suspend and resume a SunHSI/S adapter. You must stop all of the applications running over SunHSI/S adapters because the SunHSI/S software driver is not multi-threaded. For more information, refer to Sun bug report number 4188122.

Sun-4c Systems are Not Supported

The SunHSI/S software does not support Sun-4c systems, which include the SPARCstation 1, 1+, 2, IPC, and IPX systems. When attempting to install the SunHSI/S software on a Sun-4c system, the system will panic because links created during the software installation are not valid on these systems.

Note – This problem is unique to Sun-4c systems, since these machines panic when an invalid attempt to access hardware is made. Refer to Sun bug report number 4188067 for more information.
