APPENDIX F

CDDI/FDDI SBus Adapter Software Release Summary

This appendix describes the enhancements to SBus drivers by software release.

SBus Driver Release 2.1 for SunOS 4.1.x (2/93)

Software Release 2.1 of the SBus adapter includes the following enhancements:

- The new driver can be installed as a loadable driver or can be built into a new kernel.
- The performance of fddistat -p has been improved.
- The driver now determines the optimum burst size.

SBus Driver Release 2.2 for SunOS 4.1.x (5/93)

Release 2.2 of the SBus driver for SunOS 4.1.x contains the following enhancements:

- The number of transmit buffers for Sun4m machines has been increased to 64. This change will increase UDP performance, especially for the newer SPARCstation 10s.
- The FDDI interface's maximum transmission units (MTU) can now be reduced from the standard 4,352 bytes to smaller values that will accommodate bridges. The MTU value is stored in the kernel variable fddimtu and can be changed in the file fddi_conf.c, or via adb.
- The installation script install.fddi optimizes tcp_sendspace and tcp_recvspace in the SunOS 4.1.x kernel to 24 KB when you select the loadable driver option.

SBus Driver Release 2.3 for SunOS 4.1.x (10/93)

Release 2.3 of the SBus driver for SunOS 4.1.x contains the following enhancements:

- Support for MLT-3, the ANSI specification for compression of FDDI signals over UTP copper wire.
- Support for IP multicasting as specified in RFC 1054 (host extensions for IP multicasting). This feature requires a special release; contact Cisco Systems for more information.
- Protection features are included that help prevent the node processor from hanging.
- Changes to download_flash ensure that the Flash on the adapter card is reprogrammed via the node processor even if all Flashcode is accidently erased.
- The fddistat display now includes the Media Type field, and a -l option to display results from RCV_CTR diagnostic tests.
- Performance optimization is now automatic. The install.fddi script updates the variables tcp_sendspace and tcp_recvspace in the file in_proto.c. The register bug in openprom_xxx.c has been fixed. All of these changes also take effect if you choose the loadable driver.
- Burst size is automatically detected in Sun Classic and LX workstations running SunOS 4.1.3c.
- Loan-out of all receive buffers is prevented. Minimum receive loan-out size has been increased to 128 bytes.

SBus Driver Release 3.2 for SunOS 4.1.x

Release 3.2 of the SBus driver for SunOS 4.1.x contains the following enhancements:

The following new features have been added to the CDDI/FDDI SBus Adapter Driver software Version 3.2:

- Support for SMT Revision 6.2 or 7.3 with turbo and SMT 6.2 for nonturbo SBus adapters. Table F-1 is a matrix showing the correct flashcode filename to be downloaded depending on your SMT version and adapter card type.

Table F-1 Flashcode File Matrix for Release 3.2

Filename	SMT Version	Adapter Card Type	Product Number
sbus25.rom	6.2	Nonturbo	WA-C300, WA-C301M, WA-C303, WA-C305, WA-C306M, WA-C308
sbus36.rom	6.2	Turbo	WA-C301T, WA-C303T, WA-C306T, WA-C308T
sbus42.rom	7.3	Turbo	WA-C301T, WA-C303T, WA-C306T, WA-C308T

The appendix “Download Utilities” in the *Workgroup CDDI/FDDI SBus Adapter User Guide* describes how to use the download_flash utility to update the firmware on the SBus adapter.

The README file on the CDDI/FDDI SBus adapter driver for SunOS 4.1.x diskette contains detailed descriptions and configuration instructions for the following features:

- Support for SMT revision 6.2 or 7.3
- Sunlink OSI 7.0.1 support (see the README file for the required Sun patch)
- Sunlink DNI 7.0.1 support (see the README file for the required Sun patch)

- IPT uShare Appletalk Version 4.0, Phase 2 support
- Support for Helios EtherShare 2.2 AppleTalk package
- Support for Netatalk 1.3
- Novell IPX support
- Sunlink NetWare 1.0 IPX support

SBus Driver Release 4.1 for SunOS 4.1.x

Release 4.1 of the SBus driver for Solaris 2.x contains the following enhancements:

- Support for diskless boot workstations. For detailed information, refer to the *Workgroup CDDI/FDDI SBus Adapter User Guide*.
- Support for the SunOS IP multicast kernel as per RFC 1054 using the SunOS Driver (multicast) Version 4.1 diskette.

The SunOS IP multicast driver only works with the SunOS Version 4.1.x multicast kernel.

SBus Driver Release 1.1 for Solaris 2.x (3/93)

Release 1.1 of the SBus driver for Solaris 2.x contains the following enhancements and fixes:

- Software under Solaris 2.x is installed in packages using the **pkgadd** command.
- The download_flash and network_download utilities are now available for Solaris 2.x clients.
- For IP multicast support, your SBus adapter must have Flashcode Release 2.1 or later. Use fddistat to view the current version on your SBus adapter. If your adapter has an earlier version of Flashcode, obtain the latest version from Cisco Systems and update your adapter using the download_flash utility.

SBus Driver Release 1.2 for Solaris 2.x (10/93)

Release 1.2 of the SBus driver for Solaris 2.x contains the following enhancements:

- The ANSI specification for compression of FDDI signals over UTP copper wire—MLT-3 is now supported.
- The fddistat display now includes the Media Type field.

Release 1.2 of the SBus driver for Solaris 2.x contains the following fixes:

- The ICMP source quench problem is fixed when running UDP tests on SPARCstation 10s.
- Running rarpd under Solaris is now supported.

Note Running snoop under Solaris 2.2 or 2.3 causes snoop to core dump.

SBus Driver Release 2.4 for Solaris 2.x (2/94)

Release 2.4 of the SBus driver for Solaris 2.x contains the following enhancements:

- The stream queue flow control high-water and low-water marks are tuned to cause flow control to be invoked during transmit when a high-performance workstation overruns the adapter.
- The burst mask used for SPARCcenter 1000/2000 and SPARCstation 2/IPX workstations was reduced from 0x3f to 0x1f, and changed to improved reliability and performance of fifo.
- The “recursive mutex” panic when the NP sent the host the CC_RESETME command is fixed.
- Mutex used for the receive software interrupt handler from the rbuflock to intrlock mutex, for enabling/disabling the receive done interrupt, is modified.
- Strioctl ic_timeout problem in SNMP agent and fddistat when running Solaris 2.3 is corrected.

SBus Driver Release 2.6 for Solaris 2.x

Release 2.6 of the SBus driver for Solaris 2.x contains the following enhancements:

- Support for SMT Revision 6.2 or 7.3 with turbo and SMT 6.2 for nonturbo SBus adapters. Table F-2 is a matrix showing the correct flashcode filename to be downloaded depending on your SMT version and adapter card type.

Table F-2 Flashcode File Matrix for Release 2.6

Filename	SMT Version	Adapter Card Type	Product Number
sbus25.rom	6.2	Nonturbo	WA-C300, WA-C301M, WA-C303, WA-C305, WA-C306M, WA-C308
sbus36.rom	6.2	Turbo	WA-C301T, WA-C303T, WA-C306T, WA-C308T
sbus42.rom	7.3	Turbo	WA-C301T, WA-C303T, WA-C306T, WA-C308T

The appendix “Download Utilities” in the *Workgroup CDDI/FDDI SBus Adapter User Guide* describes how to use the download_flash utility to update the firmware on the SBus adapter.

The README file on the CDDI/FDDI SBus adapter driver for Solaris 2.x diskette contains detailed descriptions and configuration instructions for the following features:

- Support for SMT Revision 6.2 or 7.3
- Sunlink OSI 8.0 support (see the README file for the required Sun patch)
- Sunlink DNI 8.0 support (see the README file for the required Sun patch)
- IPT uShare Appletalk Version 3.07e, Phase 2 support
- Support for Helios EtherShare 2.2 AppleTalk package
- Novell IPX support

Network device names, for example, fddi0 and fddi1, now use the OBP's instance number (see the README file or man page for /etc/path_to_inst for more information).

SBus Driver Release 3.1 for Solaris 2.x

Release 3.1 of the SBus driver for Solaris 2.x contains the following enhancements:

- Support for diskless boot workstations. For detailed information, refer to the *Workgroup CDDI/FDDI SBus Adapter User Guide*.
- Support for Solaris JumpStart option. For detailed information, refer to the *Workgroup CDDI/FDDI SBus Adapter User Guide*.