



Doc. No. 78-3673-01

# Cisco ATM SBus Network Adapter Release Notes

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## Release Date: 08/14/96

Beginning with this software release, Cisco will be providing the ZeitNet version of the Solaris and SunOS driver software. ZeitNet, Inc, is the OEM supplier to Cisco of these products, and this software is certified to run on both the Cisco and ZeitNet version of the ATM SBus adapter hardware.

We are making this change in order to facilitate the more rapid update and release to new versions of the software. By eliminating the time-consuming process of changing the names in the software — and more significantly, converting the documentation to Cisco formats — this change will allow you to receive software and documentation updates more quickly.

Although the software displays the ZeitNet name, its look and feel are identical to those of prior releases of the Cisco driver versions. In addition, you can continue to rely on the features of Cisco support:

- Technical support from Cisco's Technical Assistance Center (TAC).
- Access to driver updates on Cisco Connection Online
- Ability to open cases with the TAC via CCO

## Ordering Documentation:

The documentation for this product will no longer be contained on the CD-ROM Cisco Connection Documentation, Enterprise Series (formerly UniverCD). You may order the documentation via Cisco Express by calling (800) 553-6387 or (408) 526-7208 and charging it to your credit card. Alternatively, you can send a credit card order by fax to (408) 526-7118, or send a credit-card order by e-mail to [express@cisco.com](mailto:express@cisco.com). Corporate purchase orders are also accepted, by fax only.

For further information on ordering, refer to the Cisco Express page at Cisco Connection Online (<http://www.cisco.com>) or see the Cisco Price List.

The manual, *ZeitNet Z-ATM Solaris/SunOS User Guide*, can be ordered as product number DOC-ATMSOLSUNUG=.

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## Overview

These Release Notes describe product features, important information, and troubleshooting suggestions for the Z-ATM Sbus Adapter software release for Solaris/SunOS, version 3.0 (1). These Release Notes supplement the *ZeitNet Z-ATM Solaris/SunOS User Guide, version 3.0*.

	Part Number	Version	Description
Product	WA-C401		SBus Fiber (equivalent to ZeitNet ZN1211)
	WA-C402		SBus Copper (equivalent to ZeitNet ZN1215)
Release Notes		3.0	Describes release notes information
Software		3.0 (1)	<i>ZeitNet ATM Sbus Adapter Solaris 2.3/2.4/2.5 Setup Disk</i> (Three 3.5" diskettes)
		3.0 (1)	<i>ZeitNet ATM Sbus Adapter SunOS 4.1.3/4.1.4 Setup Disk</i> (Three 3.5" diskettes)
Manuals		3.0	<i>ZeitNet Z-ATM Solaris/SunOS User Guide, version 3.0</i>
		3.0	<i>ZeitNet Z-ATM Sbus Adapter Guide</i>

## SBus Solaris and SBus SunOS Adapters Notes

The following notes pertain to both the Solaris and SunOS systems. You should read these notes before you install and use the Z-ATM Sbus Adapter:

- The Z-ATM Sbus Adapter does not support model 20, 30, and the early version of model 40 of the SPARC station 10, with bus speeds less than 20MHz. These workstations will exhibit cell loss (reported as CRC errors) under some heavily-loaded conditions.

You can display the bus speed (on most systems), as follows:

— Press Stop and a.

The `ok` prompt appears.

— At the `ok` prompt, enter `module-info`.

If the system is booted with `kadb`, enter `$q` to display the `ok` prompt.

- The Z-ATM Solaris/SunOS software supports two adapters per host.
- You can set the physical transmission mode to SDH or SONET by modifying the `zninit.db` file. Specify the transmission mode after the `BEGIN_LINK` statement and before the VLANs definition.

The following example is for SDH:

```
BEGIN_LINK_GLOBALS
FRAMING_TYPE: SDH STM-1
END_LINK_GLOBALS
```

The following example is for SONET (STS-3c):

```
BEGIN_LINK_GLOBALS
FRAMING_TYPE:SONET STS-3c
END_LINK_GLOBALS
```

- The Z-ATM Sbus Adapter does not work with UltraSparc workstations that have OpenBoot 3.x Beta firmware. You can verify which firmware your workstation uses on the banner that appears when you boot the workstation.

- When you delete a VLAN, the *ifconfig* utility might still display the VLAN. The VLAN does not appear when you reboot the workstation.
- The Z-ATM Initializer (*zninit*) utility does not always validate values against bounds.
- Under some heavily-loaded conditions, the *znsigd* daemon might terminate and create a core file in the root (/) directory. If this occurs, do the following to ensure that the ATM stack operates properly:
  - Remove the core file.
  - Restart the terminated *znsigd* daemon. You can check which daemon terminated with the *ps* command.

## SBus Solaris Adapter Notes

- This software has been tested with Solaris 2.3, Solaris with mandatory patch level 1, Solaris 2.4, and Solaris 2.5. Make sure to apply any mandatory patches to your operating system. On a Solaris system, to display installed patches, enter the *showrev -p* command.
- An error message might appear when the driver is added during installation. If you reboot the system, the driver should load successfully. If an error does occur during a reboot, refer to the “Troubleshooting” chapter of the *ZeitNet Z-ATM Solaris/SunOS User Guide*.

## SBus SunOS Adapter Notes

The following notes pertain only to installing and using the Z-ATM SBus Adapter on a SunOS system:

- The Z-ATM Sbus Adapter software is supported on SunOS 4.1.3, patch level U1, and later versions of SunOS operating systems.
- The Z-ATM Sbus Adapter software for SunOS is supported only on machines with sun4m architecture, which includes the models Sparc-5, Sparc-10, and Sparc-20. You can find the Sun architecture with the *uname -m* command.
- The Z-ATM Sbus Adapter driver for SunOS cannot be unloaded. However, you can remove the driver using the */etc/uninstall\_ZNatm* command.
- The IP layer supports only packet sizes less than 32K. If you attempt to transmit or receive packets greater than this size, an error is reported.
- The installation of the Z-ATM Sbus Adapter software requires at least 8MB of available disk space under the */usr/tmp/unbundled* directory.
- You cannot change the MTU size for any VLAN.
- If the *in.routed* daemon is started before the VLAN configuration is complete, the route tables might not get updated properly. You should flush the route table (*route -f*) if you have a problem. To avoid this problem across reboots, you can move the *csatmstartup* entry at the end of the */etc/rc.local* file, just before the entry that starts the *in.routed* daemon.

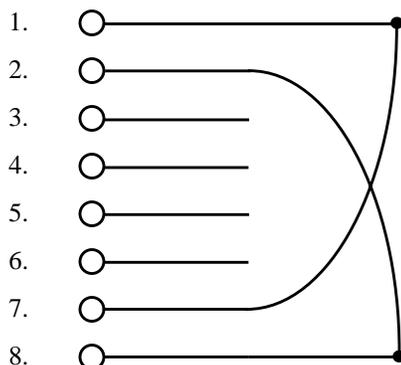
## Z-ATM Administrator

The following notes are for the Z-ATM Administrator utility (*znadmin*). This information pertains to both the Solaris and SunOS systems.

- When you start the AAL tests, you cannot stop the tests or refresh the screen until the test is completed. The standard number of packets used for the test is large. You might want to reduce the number of packets to reduce the time it takes to complete the test.
- When you use the Z-ATM Administrator to initialize and then delete a VLAN without starting it, the Z-ATM Sbus Adapter driver does not recognize that the VLAN existed. The `no such interface` error message appears. You can ignore this error message.
- If you attempt to quit from a subwindow by clicking on the icon in the upper-left corner of the window, the Z-ATM Administrator exits with a segmentation fault. This fault is recorded and stored in a core dump file. This fault occurs with a subwindow that periodically updates itself. Instead of clicking on the icon, you should click the OK or Close button to close the subwindow.
- When you select menu options, the windows displayed are inactive until you close the subwindows.
- You can access the Z-ATM Administrator from a remote system by setting the `DISPLAY` environment variable the same way as for any other X application. You cannot access the Z-ATM Administrator remotely using Telnet.
- The Z-ATM Administrator will not function as expected if you have activated the Numlock function on the keyboard.
- Some tables appear wider than the normal screen width. You can view the right portion of the table by scrolling to the right. Data in these tables is updated after a preset interval. When data is updated, the screen is returned to the left portion of the table. You can set the refresh interval to a longer period of time, so that the right side of the screen is visible for a longer period.
- The Timer value for the ARP table appears in minutes.
- The system displays error messages when you run an external loopback test. You can ignore these messages.
- Under certain circumstances, when you select the Exit option, the Z-ATM Administrator might exit abnormally and create a core file.
- When the Z-ATM Administrator saves the configuration information for a LANE VLAN that is not operational, it might store the LECID as 0. You should delete this line from the *zninit.db* file.
- You cannot individually reset the VC statistics for a VCI that is greater than 1023. You can reset the VC statistics for all VCs by entering 0 for the VCI number.
- The Individual VC Statistics screen will display up to 168 VCs.
- When you run an External Loopback Test, you must use a loopback cable. You can create a loopback cable as follows:
  - If your cable is fiber, create a loopback cable by connecting one end of one fiber to TX and the other end to RX.

- If your cable is copper, create a loopback cable by modifying an existing category 5 RJ-45 8-wire cable. For loopback connections, on one end, solder pins 1 and 7 together, and solder pins 2 and 8 together according the schematic below. Then replace the connector shell and plug in the modified RJ-45 connector cable.

8-pin connector



## Setting Systems for Connecting Adapters Back to Back

To connect the adapters on two endstations back to back (without going through a switch), disable the signaling on the endstations. In the same way, when connecting an endstation to an AIP directly or when a switch with no signaling support is used, disable the signaling on the endstations.

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**Note** You must undo these changes before you connect to the switch.

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### SunOS System

Enter the following instructions at the command line to disable signaling on the endstations for SunOS systems:

```
# cd /sys/zatm
# adb -w zatm.o
zipc_svc?W 0 (0 to turn SVC off; 1 to turn SVC on)
^D
# reboot
```

### Solaris System

Enter the following line to the */etc/system* file to disable signaling on the endstations for Solaris systems:

```
set zatm:zipc_svc = 0 (0 to turn signalling off)
```

## Network Installation for SunOS

The following procedure is for a network installation:

**Step 1** Issue the following command to create and extract files into the *+install* directory:

```
# cd /tmp
# bar /dev/rfd0c 18
```

**Step 2** When prompted, remove the inserted diskette and insert the next one.

**Step 3** Export and mount the *+install* directory on the client system.

**Step 4** On the client system, enter the following commands:

```
# cd +install
# ./install_unbundled
```

The following appears:

```
< A list of all the installed files >
.
.
<Installation of Zatm is complete. >
*****
Now edit the /etc/zninit.db file to reflect your VLAN Configuration and make
sure that /etc/atms and /etc/hosts files have been updated appropriately
before rebooting the system.
*****
#
```

**Step 5** Edit the system network configuration files and ATM adapter configuration files as described in the “Understanding VLAN Configuration File Syntax” section of the *ZeitNet Z-ATM Solaris/SunOS User Guide*.

**Step 6** Reboot the system log using the `/usr/etc/reboot` command.

## Electromagnetic Emissions Certifications

- Fiber: FCC Class B, EN55022 Class B, CISPIR22 Class B
- Copper: FCC Class A (Unshielded Category 5 cable)
- Copper: FCC Class B, EN55022 Class B, CISPIR22 Class B (Unshielded Category 5 cable with shielded connectors)

## Cisco Connection Online

Cisco Connection Online (CCO), formerly Cisco Information Online (CIO), is Cisco Systems' primary, real-time support channel. Maintenance customers and partners can self-register on CCO to obtain additional content and services.

Available 24 hours a day, 7 days a week, CCO provides a wealth of standard and value-added services to Cisco's customers and business partners. CCO services include product information, software updates, release notes, technical tips, the Bug Navigator, configuration notes, brochures, descriptions of service offerings, and download access to public and authorized files.

CCO serves a wide variety of users through two interfaces that are updated and enhanced simultaneously—a character-based version and a multimedia version that resides on the World Wide Web (WWW). The character-based CCO supports Zmodem, Kermit, Xmodem, FTP, Internet e-mail, and fax download options, and is excellent for quick access to information over lower bandwidths. The WWW version of CCO provides richly formatted documents with photographs, figures, graphics, and video, as well as hyperlinks to related information.

You can access CCO in the following ways:

- WWW: `http://www.cisco.com`.
- Telnet: `cco.cisco.com`.
- Modem: From North America, 408 526-8070; from Europe, 33 1 64 46 40 82. Use the following terminal settings: VT100 emulation; databits: 8; parity: none; stop bits: 1; and baud rates up to 14.4 kbps.

For a copy of CCO's Frequently Asked Questions (FAQ), contact `cco-help@cisco.com`. For additional information, contact `cco-team@cisco.com`.

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**Note** If you are a network administrator and need personal technical assistance with a Cisco product that is under warranty or covered by a maintenance contract, contact Cisco's Technical Assistance Center (TAC) at 800 553-2447, 408 526-7209, or `tac@cisco.com`. To obtain general information about Cisco Systems, Cisco products, or upgrades, contact 800 553-6387, 408 526-7208, or `cs-rep@cisco.com`.

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## Installing the SunOS Package from CCO

On the CCO server, the SunOS package image will be kept in a tar format. You need to copy the image from the CCO server into a directory with approximately 20MB of available space. The contents of this tar image can be extracted under the current directory using the following command:

```
tar xvf <tarimagenam>
```

From the same directory, execute the `./install_unbundled` command to install the SunOS package.

## Installing the Solaris Package from CCO

On the CCO server the Solaris package image will be kept in tar format. You must copy the image from the CCO server in to a directory with approximately 4MB of available disk space. The contents of the tar image can be extracted under the current directory using the following command:

```
tar xvf <tarimagenam>
```

From the same directory, execute `pkgadd -d 0` to install the Solaris package.

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This document is to be used in conjunction with the *ZeitNet Z-ATM Solaris/SunOS User Guide*.

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