SunFastEthernet Adapter Product Note

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SunFastEthernet Adapter

The following data is in addition to that detailed in the SunFastEthernet Adapter User Guide, P/N 801-6109-10.

Hardware Requirements

OpenBoot Prom (OBP) version 2.3 is the first OBP version that supports the SunFastEthernet Adapter. Verify your OBP version by typing the *banner* command at the *ok* prompt. If the OBP version is earlier than 2.3 then the OBP must be upgraded.

Software Requirements

Solaris 2.3 Hardware: 5/94

Solaris™ 2.3 Hardware: 5/94 is the first Solaris release supporting the SunFastEthernet Adapter™.

Mandatory Patch Requirements

Patch ID number 101820-01 is required for a SunFastEthernet Adapter when used with Solaris 2.3 Hardware: 5/94. Contact your local Sun provider.

Solaris 2.3 Hardware: 8/94 or Later

The Solaris 2.3 Hardware: 8/94 software is shipped on a single CD. The CD software for this distribution is divided into five software packages or clusters (see following table). The driver for the SunFastEthernet Adapter (SUNWbmac) is bundled on the "*Entire Distribution plus OEM Support*" cluster

which automatically installs the driver SUNWbmac. For the *"Entire Distribution", "Programmer" and "End User Support"* clusters, the driver is installed only *if SunFastEthernet Adapter hardware is installed in the system*.

Table 1 Solaris 2.3 Hardware: 8/94 CD

Cluster	Size
Entire Distribution plus OEM Support	298.80 MByte
Entire Distribution	298.1 MByte
Programmer	220Mbyte
End User System Support	125.37 MByte
Core System Support	59.88 MByte

If SunFastEthernet hardware *was not installed* when the Solaris 2.3 Hardware: 8/94 software distribution was installed using one of the last four clusters, then the driver is not automatically installed via suninstall, instead, the driver must be installed using the *pkgadd* command. Refer to "Adding SUNWbmac using Pkgadd Command", page 5, in the SunFastEthernet User Guide, P/N 801-6109-10.

Net-Install Servers (Solaris 2.3 Hardware: 5/94 Only)

Note – The Solaris CD cannot be used to do a net-install (read only), thus the following section is applicable only when the Solaris CD image is archived to a disk.

To allow net-install over the *be* interface the *be* minor-device- number must be added to your particular architecture's *name_to_major* file. To determine the *be* minor-device-number proceed as follows:

1. **Determine the directory where the Solaris CD image is loaded.**
   For example, if the Solaris software is located within a directory named DIR, then type the following:

```
# cd DIR/export/exec/kvm
```

2. **Use the *ls* command to list the directory contents.**
   Different directories for supported architectures will be listed.

3. **Use the *cd* command and go to the directory containing your particular architecture.**

4. **Type the following line to get a listing for the minor device number for the *be0* device:**

```
# ls -l devices/pseudo/clone@0:be
```

The resultant listing will have the following format:

```
crw-rw-rw 1 root sys 11,<minor-device number> <date>
/devices/pseudo/clone@0:be
```

5. **For the above example the minor-device-number should be added to the etc/name_to_major file as follows:**

```
be <minor-device-number>
```

Diskless Clients (Solaris 2.3 Hardware: 5/94 Only)

For support of diskless client booting do the following:

1. **Go to your clients root partition and use your favorite editor to add an entry for the *be* device to your clients *name_to_major* file as follows:**

```
# cd /export/root/<client name>/etc
```

2. **Edit the** *name_to_major* **file by adding an entry for the** *be* **device.**
   If the major device number for the last file entry is “n” then use” n+1” for the *be* channel major device number. As shown in the example, if the last entry is *qe 104* then use *be 105.*

```
qec 103
qe 104
be 105
```

3. **Copy** *be* **driver to clients root partition as follows:**

```
# cd /export/root/<client name>/kernel/drv
```

   then:

```
# cp /kernel/drv/be .
```

Speed Selection

If you receive the following messages after connecting to a 10 or 100Mbps network then more than likely the external hub and the SunFastEthernet are out of sync. In these instances speed selection may be done manually using the *be_speed* utility as indicated in the procedure that follows:

```
# 100 Mbps Link Up
  Link Down
  10 Mbps Link Up
  Link Down
```

This utility is available in the directory /usr/sbin only if patch ID 101820-01 is installed. This patch is mandatory for the Solaris 2.3 Hardware: 5/94 release; for the Solaris 2.3 Hardware: 8/94 release the patch is needed only if the *be_speed* utility is required.

To use the utility, type the following at the prompt:

```
# /usr/sbin/be_speed beX <arguments>
```

Wherein X is the SunFastEthernet Adapter card number and the arguments are:

- auto (automatic speed selection)
- 100 (forces 100 Mbps mode)
- 10 (forces 10 Mbps mode)

If no arguments are selected then the current mode (auto or forced) and speed (10 or 100Mbps) of the interface will be printed.