Appendix C
Troubleshooting

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This appendix contains troubleshooting information on the following topics:

- Installation and configuration errors
- PCA
- RUNCMD error messages and troubleshooting
- Gateway traces
- Token Ring support
- Gateway errors

Installation and Configuration Errors

This section discusses installation and configuration error messages and includes explanations and recommended actions.

Installation Checklist

Use the following checklist to ensure installation procedures were followed correctly during a remote mount installation:

- If the */cdrom* is not exported.
- If nfsd and rpc.mountd are not running on the machine on which the CD-ROM is connected.
- If there is a problem reaching the remote host.

Configuration Checklist

Some of the most common errors during the configuration process include the following:

- Incorrect *pu_name*—The name in the *p2pconf* input file does not correspond to the name in the IBM VTAM file.
- Incorrect *network_name*—The name in the *p2pconf* input file does not correspond to the NETID name in the IBM VTAM file.

- The DEFINE_LU variables are not defined in the *p2pconf* input file. These variables must be defined since they are used by the SNA Peer-to-Peer software.

Configuration Error Messages

The following error message might occur when using the CiscoWorks NetView Interface. If you cannot find an error message, check the troubleshooting section in the *7.0 SunLink SNA Peer-to-Peer Administrator's Guide*.

Error Message:

```
inetd [#] P2P/rcp/upd: unknown service
```

Explanation:

The SNA P2P gateway was not added to the NIS Services list. The machine running SNA Peer-to-Peer is acting as a slave server for the NIS Server.

Recommended Action:

Add the IP address and machine name to the list of machine names on the NIS Server.

PCA

The following notes highlight some of the troubleshooting tips you can use to solve PCA problems.

If an *authenticationFailure* trap is generated by the snmpd when PCA is installed, you can disable it in one of two ways:

- Enter an SNMP daemon (snmpd) Write community string in the PCA schema.

  The Write community string in the PCA schema should match the Write community string in the */etc/snmpd.conf* file. Restart SunNet Manager (SNM) after this file is updated. You can also change the Write community string from within the SNM Property Sheet for the CiscoWorks NetView Interface Sun workstation.
- Start snmpd with an **-a** option.

Error Messages

The following error messages might occur when using the CiscoWorks NetView Interface. If you cannot find an error message, check the troubleshooting section in the *7.0 SunLink SNA Peer-to-Peer Administrator's Guide*.

Error Message:

```
Is logger running on device_name?
```

Explanation:

This message may appear in response to a misspelled **shomibvar** RUNCMD request. It might also occur if the router does not recognize or support the specified group MIB variable, if you have entered an incorrect interface name, or if SNM is not running.

Recommended Action:

Refer to Table 6-2, which describes supported group MIB variables. Also, check if SNM is running.

Error Message:

```
Request failed.
```

Explanation:

The **netset** RUNCMD request has failed. The SunNet Manager property sheet for this device is missing the SNMP Write community string. CiscoWorks requires that the property sheet contain the SNMP Write community string for RUNCMD requests.

Recommended Action:

Check the SNMP Write community string under the SNM console's property sheet. If there is none, enter the device's current SNMP Write community string. If you do not know the SNMP Write community string, use the CiscoWorks Device Management application to look it up. You can also use the **getconf** RUNCMD to look for the string, since the configuration file includes the community strings for the device.

Error Message:

```
Unknown field 'field_name'
```

Explanation:

The SNM **snm-cmd** displays a generic error message for a variety of errors.

Recommended Action:

If you receive this generic error, check the following list for possible reasons:

1. Check the Read and Write community string for that device. Use the SNM Properties sheet to access this information.
2. Ensure the correct interface name appears in the command syntax.

   SNM does not understand any variable that does not match and displays an error message.
3. Ensure the SunNet Manager Console is running.

RUNCMD Error Messages and Troubleshooting

This section discusses RUNCMD errors and include explanations and recommended actions.

Misspelled or Unsupported Commands

If the NetView operator sends a misspelled or unsupported command (for example, **wrongcmd**) CiscoWorks NetView Interface will respond by sending an error message to the NetView console:

```
RUNCMD sp="CiscoWorks",appl=unix,wrongcmd test
DSI264I RUNCMD FAILED FOR CiscoWorks – RTNCD = x'04', FDBK2 = x'04', SYSTEM SENSE
= X'8000', USER SENSE = X'0000'
```

You might also receive this error when the RUNCMD Server is not registered.

If the NetView operator misspelled the command, a syntax usage string appears:

```
Syntax is: getconf devname community domain
```

Retry sending the request. If it is a RUNCMD Server connection problem, restart the RUNCMD Server. Refer to the section on "RUNCMD Server" in Chapter 5 for instructions on starting the Server.

Performing a Gateway Trace

This section contains updated information on the Sun Administration manual contents on how to perform a gateway trace.

Fore tracing capabilities, perform the following steps:

Step 1: Edit your SNA Peer-to-Peer configuration input file, *p2pconf_custom*, using the text editor of your choice.

Step 2: Turn on the DB_MSG (debugging messages) parameter in the PCA event table. The following values should be set in DB_MSG:

- flags = 6
- filename = '*your_trace*'
- other variables = 1

Step 3: Save the table.

Step 4: Restart PCA by clicking on the PCA glyph and pulling down to Tools to select **PCA Start**.

Step 5: To turn debugging off, return all value settings in the DB_MSG parameter back to zero (0).

Step 6: Repeat steps 3 and 4.

Token Ring Support

This section contains information on some Token Ring support issues.

Token Ring Status

To determine if your Token Ring interface is up, enter the following command at the UNIX prompt:

```
% ifconfig tr0
```

The current Token Ring status displays. Ensure that your Token Ring interface is configured correctly in your */etc/rc.local* file.

Shared Interface Port

If you plan to use both interfaces *E0* and *T0*, you must assign a different MAC address to the Token Ring. This is referred to as a locally administered mac address.

To add the locally administered MAC address for your SPARCstation, add the following two lines to the *rc.local* file:

```
/etc/rc.local file:
ifconfig ether 00:00:00:00:00:00
```

MTU Size in Token Ring File

The maximum transmission unit (MTU) size set on the SUN workstation must be same as the MTU used on the Token Ring. If this is not the case, you will receive error messages regarding MTU size on the console. Sun drops the packets where MTU size is not equal to size it is configured.

To change the MTU size, perform the following steps:

Step 1: Edit the *sys/netinet/token_tr.h* file using your favorite editor. For example, to edit the file using vi:

```
% vi /sys/netinet/token_tr.h
```

Step 2: Change the TR_LEN_MTU variable (this is a index into the table) to whichever variable is appropriate for your Token Ring.

For example, for MTU size of 516, set the TR_LEN_MTU to 0.

Step 3: Save the file.

Step 4: Change directories to the kernel configuration directory.

```
% cd /usr/kvm/sys/sun4c/xxxxx
```

The example above uses */usr/kvm/sys/sun4c/xxxxx* as the directory where the kernel is located. Substitute the appropriate directory here.

Step 5: Run make to update the kernel:

```
% make
```

Step 6: Copy the kernel to root.

```
% cp /usr/kvm/sys/sun4c/XXXXX/vmunix /vmunix
```

Step 7: Reboot your workstation. You can use L1A or any other method of rebooting.

Gateway Errors

This section describes troubleshooting gateway errors.

Error Message:

```
Waiting for link to become active.
```

Explanation:

After you run the *startp2p* script, this message might indicate that the software link to the IBM front end processor (FEP) is not complete. There may be an SNA Peer-to-Peer configuration error, or the Token Ring (or SDLC) may be incorrectly configured.

Recommended Action:

Check your customized *p2pconf* file for configuration errors. Also check the Token Ring or SDLC configuration.