INTERPHASE CORPORATION®

READ ME FIRST
5575/5525 PCI ATM
ID2.0 Driver for HP-UX 10.20

Read This Before You Begin!

Description

This *Read Me First* supplements the *Users Guide* for Interphase 5575/5525 PCI ATM adapters that use the Integrated Driver for HP-UX version 10.20.

Driver Revision

PCI ATM 5575/5525 ID2.0 driver for HP-UX

SX00353-D00

Latest Revisions

Latest versions of this driver and documentation will be make available on Interphase's ftp server. Contact Interphase for details of location.

Operating System Revision(s) Supported

HP-UX 10.20

Hardware Compatibility

Host: Tested in 9000/725 running HP-UX B.10.20 A

Functions Supported

Client and Services functions for LAN Emulation, MPOA and RFC1577 Classical IP over ATM

Installation and Configuration

1. Install the Interphase ATM board.
2. Create a temporary directory to hold the driver and utility files.
3. Extract the following files from the media (file or tarfile on diskette), using "tar -xvf /dev/floppy" or "tar -xvf tarfile":

   README (this file)

   INPHID1.tar (or similar filename)

Installation will require the following steps:

1. Verify that the required PCI kernel services exist.

   Run SAM

   Select “Kernel Configuration”

   Select “Drivers”

2. Look at the “GSCtoPCI” driver and determine the current state. If the current state is “In”, go to step 3, otherwise continue with the following steps.

   Select the “GSCtoPCI” driver

   Select “Actions”

   Select “Add Driver to Kernel”

   Select “Actions”

   Select “Create a New Kernel”

   Select “Move kernel into place and reboot”

3. Install the Interphase ATM driver software as root as follows:

   swinstall -s /<path>/INPHID1.tar

NOTE

This will distribute the files packaged in the INPHID1.tar file. It does not change the contents of this temporary directory.

After installation, the driver must be configured. Determine the IP address of the ATM adapter. Note that if there are other IP nodes on the host system (e.g. an Ethernet interface), the IP address used for each ATM interface must be in a totally separate network segment. If the same segment as the Ethernet is used (for example), then routing and broadcast problems will occur as the network layer will assume that both devices are physically on the same segment.

To configure the driver to automatically start at boot time, it will be necessary to add the correct net addresses and netmask values for each li interface to the INPHID1 startup data file. To do this use vi to edit the file /etc/rc.config.d/liconf with the proper values for your system. These values will be used by the inphid1 startup script when run manually or automatically during reboot operations.

4. Edit the file /etc/rc.config.d/liconf with appropriate values for your interface(s) in order to configure the driver.

   Example:

   INTERFACE_NAME[0]=li0

   IP_ADDRESS[0]=129.100.100.55

   SUBNET_MASK[0]=255.255.255.0

INTERFACE_NAME[1]=li1
IP_ADDRESS[1]=129.101.100.55
SUBNET_MASK[1]=255.255.255.0
.
.
INTERFACE_NAME[4]=li32
IP_ADDRESS[4]=129.132.100.55
SUBNET_MASK[4]=255.255.255.0

5. Execute the startup script as root as follows:
   /sbin/init.d/inphid1 start
6. Use Cellview to set up lec's
   See Cellview man page if needed.

Installation Verification

To manually verify that the driver is installed and operational, use

netstat -i

which should show all inactive and active li interfaces

Confirm the configuration with

/etc/ifconfig li0

which should show the driver as UP with the correct address, netmask and MTU.

Confirm that a specific client is enabled with ledbg. For example to verify that client 0 on board 0 is is enabled:

ledbg -a0 -u0

Note that results may be misleading if signald is not running.

Verify signald is running as follows:

ps -e | grep signald

De-configuration and Deinstallation

To de-configure and deinstall the interface

1. Using Cellview, disable all interfaces
2. To stop signalling, execute the following script as root:
   /sbin/init.d/inphid1 stop
3. Run SAM

Select “Kernel Configuration”

Select “Drivers”

Select the “li” driver

Select “Actions”

Select “Remove Driver from Kernel”

Select “Actions”

Select “Create a New Kernel”

Select “Move Kernel into place and continue shutdown”

NOTE

Do not become alarmed when, at boot time, there is an error starting the Interphase software.

swremove INPHID1

This will remove the software package from the system, but does not delete the contents of the temporary installation directory. Re-installation is possible as described above.

Known Deficiencies and Limitations

1. The Cellview MPOA statistics window may occasionally fail to update properly. The HPUX 10.20 X/Motif Runtime Cumulative Patch is required to correct this problem. This patch may be downloaded form HP’s web site.

Setting up Additional Clients

The Interphase 5575/5525 ATM SVC/LANE driver allows 16 LANE clients per adapter.

Use cellview to enable/disable a LANE client.

Use cellview to remove a LANE client.

To enable a LANE client manually, the following steps should be performed:

1. Edit the file /etc/atm/cvconf.

   In this file, select the Maximum Frame Size for the client. This is done by setting the maxframesz line to a number between 1 and 3, where 1 is a 1516 byte frame, 2 is a 4544 byte frame, and 3 is a 9234 byte frame. Note that all clients on an Emulated LAN must have the same frame size.

   See the cvconf man page for more information on the fields in this file.

2. Reboot the system. This will cause the LANE configuration script /usr/bin/cvconf to be run, which will enable the LANE clients specified by the /etc/atm/cvconf file.

If you do not wish to reboot the system, then you should run the following commands to reconfigure the LANE driver:

a. Run the shutdown script as follows:

/sbin/init.d/inphid1 stop

b. Run the startup script as follows:

/sbin/init.d/inphid1 start

Use Cellview to perform the following functions:

Setup or reconfigure PVC's on LANE clients

Setup LANE Servers

Setup LANE Configuration Servers

Enable/disable LECS

Enable/disable RFC-1577 Clients (and Servers if configured as a server)

Setup PVCs on RFC-1577

Message Logging

Messages from the driver and signald are logged to a file named /usr/adm/signald.log. If problems are encountered setting up LAN Emulation Clients, this file should be consulted.

Contact Information

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