READ ME FIRST
PCI ATM NT ID1.5 DRIVER

Read This Before You Begin!

Purpose

This readme file provides new features and any know issues related to SVC SX00168-C08 NT PCI ATM DRIVERS.

Description

Release Notes
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1) If you have any previews version of NT ATM PCI driver installed on your machine, you will need to remove that driver and reinstall sx00168-c08.

Memory Requirement

This driver requires about 1M memory per Adapter and 800K of memory per client. If you are installing one adapter and 10 clients, you need to make sure your system as at least 1M + (10 x 800K) memory. In case of two adapters and you have, lets say, 10 clients on adapter #1 and also 10 clients on adapter #2 than you need at least 2M + (20 x 800K) total memory.

This ID1.5 release of the driver contains following new features:

1) SNMP Support.
There are two steps involved in enableing SNMP support for Interphase ATM driver.

1) During installation, when you are asked to enable SNMP support select yes. If you have already installed the Interphase ATM adapter and did not enable the SNMP support during the installation time then follow the following steps to enable the SNMP support.

1. Open the Control Panel, and double-click the Network icon.

2. In the Network Settings dialog, highlight anyone of Interphase ATM client, then go down and select Update. Type in the path name to the oemsetup.inf file. This file is included with the driver.

3. Select OK in the Network Setting dialog. Reboot.

2) Once you have enabled the SNMP support in Interpahase ATM driver, then the next step is to install Interphase ATM SNMP agents to windows NT.

1. Go to the directory where you unzipped the Interphase sx00168-c08 files.

2. Look for snmpagent directory and CD into it. Inside the snmpagent directory, run iph_snmpinstall.exe file.

3. When asked to "Enter the Path from where the subagents should be install:" type in the full path to the snmpagent directory.

Note: The directory that you are currently in is the snmpagent directory.

2) ABR Support.

The following are the new features that were released in the preview version.

1) SONET/SDH
SONET (Synchronous Optical Network) is a North American multiplexing standard that defines a signal used in optical fiber networks. For ATM over fiber, OC-3c,with a base rate of 155.520 Mbps, is the most widely-used signal in the US.
SDH (Synchronous Digital Hierarchy) is the European equivalence of SONET. STM-1(Synchronous Transport Mode, Level 1) is the European equivalence of OC3-3c. Like OC-3c, STM-1 has base rate of 155 Mbps, but STM-1 has slightly different framing information than OC-3c signal. This feature allows the user to configure whether synchronous frame interfaces support either SONET or SDH framing. This can be configured at either install time or later via CellView. This configuration is on a per adapter basis.

2) Lec_enhanced.
User can define that the Lan Emulation Client via CellView that lec_enhanced VCs will not be released if LANE services are lost.

3) ILMI Service Registry for primary LECS.
This feature allows the LEC to query the switch's Service Registry MIB for a list of LECS addresses as well as Cisco SSRP support by LEC. This will simplify Network Management.

4) Support of 16 LANE clients and 16 LES.
This feature increases our current client LANE clients and servers to 16. Benefits include reduced routing for a mixed environment with Ethernet, Token Ring and FDDI.

5) Support up to 4K VCs.
Drivers and interfaces are enhanced to recognize new server level adapters that can support 4K VCs and allows user to configure/enable this new extended range.

6) Configure a VPI other than VPI zero.
This feature allows the user to configure on the transmit side via CellView, a VPI to be used by all services on a specific adapter other than the default VPI of zero. This can be done anytime.

7) Support of ILMI 4.0 Autoconfiguration.
This feature allows signalling to query the switch MIB and "negotiate" parameter setup. The most visible of these is the UNI version to be run. Users will be able to configure a specific UNI version via CellView of allow the interface to autoconfigure the UNI version.

8) Support for NSAP(or private) E.164 addresses
Signalling and LANE/CIP will now support all three NSAP form address: DCC, ICD, and E.164 NSAP.

9) Enabling and Disabling LEC, LES, LECS dynamically.
This feature allows you to enable or disable LEC, LES, LECS without rebooting your machine.

10) Redundant Link Support.
This feature allows user to define an adapter as a secondary backup for primary cards. Secondary cards becomes primary either due to physical line failure or user request. At the time they take on all the attributes of the primary link they are replacing. This includes all the clients and there IP addresses installed on the primary card will be moved on to backup card.

To add redundant link support, you must install two or more Interphase ATM adapters in your system (see installation section below on how to install ATM Adapters). After installing two or more ATM NICs in your system, reboot the system. After rebooting system, go to Control Panel and select CellView to make backup and primary selections.

During installation, you are not given a choice to select between backup and primary cards this choice is made in the Cellview utility after installing one or more adapters, but if you do know the backup adapter number during install time than we recommend you install only 1 client for that adapter and add a bogus IP address for that client. For example, if you are installing two adapters and you know that you what to make adapter #1 a primary card and adapter #2 a backup card than you want to install only 1 client for adapter #2 You can install more than 1 client on backup (or adapter #2 in this case) card if you like. However, this is not

recommended because all of client on backup cards are not used except one for initalization purposes.

If later on, you decide change backup card (or adapter #2 in this case) to primary You can switch the backup card to primary card from Cellview without any problem to do that follow the following steps:

1) From control panel, run CellView.

2) Highlight or click on Backup adapter that you want to change. and then click on Setup.

3) Go down to "Board Type:" and select Primary from the pull down menu to make this a Primary Adapter. There are only two choices Primary and Backup. Change it to Primary.

4) Go down and select OK.

5) Reboot your system.

In case you already have installed two or more adapters, you can still make the primary and backup selection from the Cellview without any modification to the installation.

Example: If your system has two NIC installed and you want to make the second card a backup card do the following:

1) From control panel, run CellView.

2) Highlight or click on first adapter (or adapter 1) and then click on Setup.

3) Go down to "Backup Adapter No:" and select the backup adapter number from the pull down menu. In this case it will be 2, because we want to make adapter number 2 our backup adapter.

4) Select OK. Know you are back at the main window.

5) Highlight or click on adapter number 2 and then click on Setup again.

6) Go down to "Board Type:" and select Backup from the pull down menu to make this a Backup Adapter. There are only two choices Primary and Backup. Select Backup.

7) Go down and select OK.

8) Reboot your system.

NOTE: DURING FAILOVER OR WHEN PRIMARY CARD GOES DOWN AND MOVES

OVER TO THE BACKUP CARD, ALL OF THE CLIENTS AND THEIR IP ADDRESSES FROM FAILED PRIMARY CARD ALSO MOVE OVER ON TO THE BACKUP CARDS EVEN IF YOU HAVE ONLY ONE CLIENTS INSTALLED ON THE BACKUP, ALL OF THIS TAKES PLACE AUTOMATICALLY WITHIN 10 SEC.

CHANGING BACKUP CARD BACK TO PRIMARY:

If you decide that you do not need any backup cards and you want to change the backup to primary card. You can switch the backup card to primary card from Cellview without any problem. To do that follow the steps below.

1) From control panel, run CellView.

2) Highlight or click on Backup adapter that you want to change. and then click on Setup.

3) Go down to "Board Type:" and select Primary from the pull down menu to make this a Primary Adapter. There are only two choices Primary and Backup. Change it to Primary.

4) Go down and select OK.

5) Reboot your system.

BACKUP CARD RESTRICATION:
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1) Maximum backup adapter you can setup is 4. This is because the maximum primary adapter you can install is 8 and 1 backup per primary is allowed.

2) You are only allowed to make the last adapters the backup adapters. For example, if you have installed 2 adapters than only adapter #2 can be a backup and adapter #1 has to be primary or you can make both adapter #1,2 primary and no backup. If you have installed 3 adapters, than only adapter #3 can be setup has a backup. This means adapter #1 and adapter #2 has to be a primary and both can be backup up by adapter #3. If either adapter #1 or #2 fails, than it will be moved on to adapter #3. If you have installed 4 boards than you can setup adapter #3 and #4 as backup and #1 and #2 has a primary or adapter #1,2,3 primary and #4 backup or all 4 primary. If you decide to make 1 and 2 primary and 3 and 4 backup than you can setup adapter #1 primary to be backup up by #3 and adapter #2 primary to be backed up by #4 backup.

All of these selection can be made through the Cellview, you will notice depending on the number of adapters you have installed cellview will only display the adapter that can be backup.

3) The board type must be the same.
    1) A 155MPS board can only backup 155MPS board
    2) 25MPS can only backup 25MPS
    3) 4K VC board can only be backup up by 4K VC.

INSTALLATION:
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1) Boot your system under Windows NT.

2) Open the Control Panel, and double-click the Network icon.

3) In the Network Settings dialog, select Add Adapter.

4) In the Add Network Adapter dialog. Select Have Disk.

5) Type in path where for ATM Adapter driver.

6) When the Select OEM Option dialog appears, select OK to confirm the name of the driver.

7) Interphase ATM Adapter Setup dialog box appears. Select the Number of Clients to install. Up to 16 Clients can be installed on a single adapter. Also, select the adapter number that you want these Clients to be installed on.

   If you are planning to install multiple adapters, go to step 3 and repeat the process again. During setup 7, select Adapter 2 etc. from the Adapter list. You can install up to eight PCI ATM adapters in the host machine. If you are installing multiple adapters and repeating the installation setups, a message appears advising that a driver of this type is already installed. Select OK to continue.

8) Select OK in the Network Setting dialog.

INSTALLING 1577 Client/Server:

Follow the same steps as in the installation above, except in step 7 from "Number of Clients" list go down to the end and select 1577 ATM Client Also, select the adapter number you want to install 1577 ATM Client on from "On Adapter" list. Repeat the process for multiple adapters.

ADDING OR DELETING CLIENTS FOR EACH ADAPTERS:

If you have installed one or more adapters in your system, you can add or remove clients on anyone of the adapters. The maximum clients you can add per adapter is 16. To add more clients to your adapters follow the same steps in the installation
Follow the same steps as in the installation above, except in step 7 from "Number of Clients" list select how many more clients to add. Also, select the adapter number you want to add these clients to from the "On Adapter" list.

To remove a client, follow the same steps as in the installation, except in step 3 select "Remove". Highlight the client that you want to remove than click on remove. You are only allowed to remove one client at a time and that client has to be the last client on each adapter.
You can remove as many client as you want one at a time.

Bug Fixes
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1) Primary Domain Control problem fixed. Primary Domain Control was was not displaying in the network neighborhood.

2) 25 Mbit/s performance problem fixed. The performance on 5525 board was very slow.

3)PVC problem fixed. Adding PVC to 1577 setup page in cellview causes cellview to disappear.

4) 1577 PVC configuration was not getting saved correctly.

5) Changing from PVC only mode to SVC the system panic.

6) Status light for 1577 PVC was indicating “Red” when a working connection has been established.

7) ARP Storm problem. Lane was sending ARP requests every 2/100 of millisecond.
8) Bogus IP Address problem in WINS Server.

Knows Issues:
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1) The maximum number of clients you can install on all boards is 32.

2) Multiple board problem on Siemens machine.

Contact Information

Customer Service

United States:	Telephone:	(214) 654-5555
	Fax:	(214) 654-5500
	E-Mail:	intouch@iphase.com
Europe:	Telephone:	+ 33 (0) 1 41 15 44 00
	Fax:	+ 33 (0) 1 41 15 12 13

World Wide Web

http://www.iphase.com

Anonymous FTP Server

ftp.iphase.com