N210/N110 - 10Gb Ethernet Adapter Installation and User's Guide for Microsoft® Windows® Server™ 2003 and Windows® XP.

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Contents

Introduction 1
Hardware and Software Requirements 1
Hardware Installation 1
Software Installation 2
Driver Configuration 2
Customer Support 3

Introduction

This document describes the Chelsio N210 and N110 10Gb Ethernet Adapter driver for Microsoft Windows Server 2003 and Windows XP.

Hardware and Software Requirements

The N210/N110 driver supports the following architectures.

All x86 (i386) architectures supporting PCI*/PCI-X (133, 100, or 66Mhz) adapters.

- AMD CPUs, 32-bit and 64-bit (x86/x86_64/amd64)
- Intel CPUs, 32-bit and 64-bit (x86/x86_64)

*The N210/N110 10Gb Ethernet adapter supports 3.3v PCI bus only. Running a 10Gb adapter on a PCI (32-bit) bus is not recommended as throughput performance will be significantly reduced by the limitations of PCI.

The N210/N110 driver is designed for Windows Server 2003 but should run on Windows Operating System which supports NDIS 5.1, such as Windows XP.

Hardware Installation

1. Shutdown and power off your system.
2. Power off all remaining peripherals attached to your system.
3. Unpack the 10Gb Ethernet adapter and place it on an anti-static surface.
4. Remove the system case cover according to the system manufacturer's instructions.
5. Remove the PCI filler plate from the slot where you will install the 10Gb Ethernet adapter. For maximum performance, it is highly recommended to install the adapter into a PCI-X slot running at 133Mhz. Avoid installing more than one device per PCI segment as this will revert the bus to 100Mhz operation.
6. Holding the 10Gb Ethernet adapter by the edges, align the edge connector with the PCI connector on the motherboard. Apply even pressure on both edges until the card is firmly seated. It may be necessary to remove the XFP (optics) modules prior to inserting the adapter.
7. Secure the 10Gb Ethernet adapter with a screw, or other securing mechanism, as described by the system manufacturer's instructions. Replace the case cover.
8. Connect a fiber cable, multi-mode for short range (SR) optics or single-mode for long range (LR) optics, to the 10Gb Ethernet adapter.

Software Installation

The Chelsio N210/N110 10Gb Ethernet adapter driver software may be downloaded via our support website at http://www.chelsio.com. The driver may also be distributed on CD-ROM.

Install the hardware and turn on the system.

The Windows “Found New Hardware Wizard” should launch and prompt about how to install the driver. **Before running through the wizard**, unzip the driver archive to a new folder or to an external media device (floppy, USB drive, etc).

On the “Found New Hardware Wizard”, select “Install from a list or specific location” and click next to continue and specify the location of the driver software. The install wizard will continue to install the driver.

Windows will display a warning which states this driver is not digitally signed and may not be safe to install. This driver is has been fully tested and is safe to install. Click yes to install the driver anyway.

If updating the driver from a previous installation, double-click the Chelsio N210/N110 Ethernet Adapter device, located in Network Connections to open the device properties. Select Configure and click the Driver tab. Click on the Update Driver button to start the update driver wizard. Provide the location of the new Chelsio N210/N110 driver and continue with the installation.

Driver Configuration

The Chelsio N210/N110 10Gb Ethernet Adapter driver provides advanced configuration options under the Device Properties. In the Network Connections window, select the N210/N110 Local Area Connection interface (right-click -> properties). Click the Configure button.

The following options are available for configuration:

Jumbo Frames	driver supports Frame sizes from 1500 bytes to 9000 bytes. Select a Frame size from the list. (default = 1500)
LSO (Large Send Offload)	enable or disable LSO.
TxCksum	enable or disable Hardware based TX checksum. (default = enabled)
RxCksum	enable or disable Hardware based RX checksum. (default = enabled)
SetPerf	enable or disable setting performance options. (default = enabled)
SizeFL	driver supports various free list queue sizes. (default = 6144)
SizeJFL	driver supports various jumbo free list queue sizes. (default = 3072)
SizeCQ	driver supports various command queue sizes (default = 4096)
VlanID	VLAN ID tag, variable from 0 to 4095. (default = 777)
Vlan	enable or disable VLAN. (default = disabled)
FlowCtl	enable or disable Flow Control (default = enabled)

Customer Support

For problems with the software or hardware, please contact our customer support team via email at support@chelsio.com or check our website at http://www.chelsio.com.

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