714331-001

*Read this **before** installing the*
Intel® PRO/100+ Dual Port Server Adapter

Late-breaking News

June 1998

This document covers topics that are not described in the Installation Guide or online files. Topics at press time are:

- Use the latest drivers
- Adding an adapter while installing NT
- Moving adapters in Windows NT
- Adapter teaming notes
- If you already have an Intel adapter installed
- Teaming capability requirements
- Teaming in IPX environments...
- Upgrading drivers in Windows NT, 95, 98
- Windows 98 cannot map to network drives
- Hotplug support
- 82558 Ethernet controller
- Full duplex support
- Viewing the Readme files
- Running SETUP.EXE
- DMI-SNMP Support
- DOS ODI Support
- PCI Interrupts
- LANDesk Traffic Analyst 2.0
- NetWare Client 32 for Windows
- NetWare 3.11 Servers
- NetWare 3.12 Servers

Use the Latest Drivers

Make sure you use the latest drivers for this adapter. These are posted on Intel's support web site at:

http://support.intel.com/support/etherexpress/pro100/software.htm

Adding an Adapter While Installing Windows NT

If you want to install the PRO/100+ Dual Port Server adapter software while installing Windows NT, you need to either install the adapter after the installation of Windows NT is complete, or install the adapter software from a floppy installation disk created from the PRO/100+ Dual Port Server CD (using the MAKEMS.BAT file on the root of the CD).

Moving adapters in Windows NT

If you're moving the PRO/100+ Dual Port Server adapter to a different slot in the same Windows NT system, make sure you remove the adapter in the Network control panel (thus removing the drivers). After you remove the drivers and move the adapter, reinstall the drivers.

Adapter Teaming Notes

Moving and removing adapter teams in Windows NT 4.0

When you move adapters out of a team or remove a team, check the adapter bindings to make sure they're set properly. Bindings are displayed on the Network control panel 'Bindings' tab.

Using AFT with a NetWare* server and switch

The NetWare AFT driver, when used with some switches, may fail to create the AFT group when the server is initially started. This is because the switch updates its MAC tables slowly when a new link is established. Clients won't be able to access the server until the MAC tables are updated and the switch begins receiving packets.

If you experience this problem, add the command:

```
AFT LINK TIMEOUT 40
```

to the server's AUTOEXEC.NCF file immediately after the `LOAD AFT` command. `40` is the number of seconds.

If You Already Have an Intel Adapter Installed

If you are adding the PRO/100+ Dual Port Server adapter to a system that already has an Intel adapter installed, see one of the following:

Windows NT Users: Refer to *Upgrading software and drivers in Windows NT*.

Windows 95 Users: Refer to *Upgrading software and drivers in Windows 95*.

Windows 98 Users: Refer to *Upgrading software and drivers in Windows 98*.

Please turn page...

All Other Users: Make sure you remove (via the software) the existing adapter before you install the PRO/100+ Dual Port Server adapter software and drivers. This will guarantee that the features specific to the PRO/100+ Dual Port Server adapter are loaded on your system.

Teaming Capability Requirements

Teaming capability requires Microsoft's Service Pack 3 and the NDIS driver hotfix. These items can be downloaded from Microsoft as follows:

Service Pack 3:

ftp://ftp.microsoft.com/bussys/winnt/winnt-public/fixes/usa/nt40/ussp3

NDIS Driver Hotfix:
ftp://ftp.microsoft.com/bussys/winnt/winnt-public/fixes/usa/nt40/hotfixes-postsp3/ndis-fix/

Teaming in IPX Environments with Windows NT Can Affect File and Print Services for NetWare

If you intend to add teaming in an IPX environment running under Windows NT, write down the NWLINK IPX Frame Type property value you currently have set. You will need to re-enter this value in the Advanced Tab of the IPX Properties after you set up teaming.

Upgrading Software and Drivers in Windows NT

If you're upgrading or adding PRO/100+ Dual Port Server adapter software and drivers on a Windows NT system and you're running TCP/IP or IPX/SPX, or have teaming set up, the settings for protocols and teams will be lost during the upgrade.

Therefore, before upgrading, you should perform the following steps:

1. Write down any configuration parameters in the protocol's properties window, as well as any teaming settings you currently have set.
2. Remove any existing adapters (via the Network icon in the Control Panel) before updating the software.
3. Install the drivers for all adapters and configure the adapters using the instructions in the Installation Guide.
4. Make sure you're using Service Pack 3 and the NDIS driver hotfix. For more information, see “Teaming capability requirements.”
5. After updating the adapter software and drivers, your computer will show the default protocol settings and no teaming. Configure the protocols appropriate for your system and configure the teams using the information you wrote down in step 1.

Upgrading Software and Drivers in Windows 95

If you're upgrading or adding PRO/100+ Dual Port Server adapter software and drivers on a Windows 95 system, make sure you remove the adapters (via the software) before updating the software. If you're running TCP/IP on the system, the TCP/IP settings will be lost during the upgrade. You may want to write down any configuration parameters in the TCP/IP properties window first.

To update adapters in Windows 95:

1. Run the System Control Panel.
2. Go to the Device Manager tab.
3. Expand Network Adapters in the tree control and select the adapter to upgrade.
4. Click Remove and restart the system.
5. The Update Device Driver wizard will appear. Follow the instructions in the wizard or refer to the Installation Guide to complete the installation.

After updating the adapter software and drivers, your computer will show the default protocol settings. Make sure you reinstall TCP/IP and remove the unrelated protocols.

Updating Software and Drivers in Windows 98

If you’re using Windows 98 and updating or adding adapter drivers, make sure you choose the option, “Display a list of all the drivers....” Then choose the adapter from the list and click Have Disk to update the drivers from the disk that ships with this adapter.

Windows 98 Cannot Map to Network Drives

When you first install the PRO/100+ Dual Port Server adapter in a Windows 98 client PC, the adapter may not properly connect to mapped network drives. This is because there is a delay in establishing LINK with the hub. It occurs after the adapter drivers are installed and Windows 98 prompts to restart the PC. After the PC restarts, the adapter port may not have LINK and therefore will not connect to mapped drives. To establish LINK, shut down Windows 98 completely and turn off the PC. When you power up the PC after this, the adapter port will establish LINK and map to your network drives.

This delayed link may also occur during subsequent restarts. If so, select the “Log off” option from the Start menu to renegotiate the log on script.

Hotplug Support

The PRO/100+ Dual Port Server adapter is enabled for use in a Compaq server, running Windows NT 4.0 or NetWare 4.11 with hotplug support software.

For Windows NT, you’ll need to install Remote Monitor Services and Hotplug Services from Compaq’s Support Software, version 2.06 or greater (from the "SmartStart and Support Software" CD version 3.60 or greater). See the Compaq documentation and/or the

Compaq web site (www.compaq.com) for more information on setting up hotplug support and obtaining software from Compaq.

Note: If you remove an adapter from a hotplug server slot, don't use the removed adapter in the same network unless the hotplug server has restarted. Until the server restarts, it retains the original Ethernet address of the removed adapter, thereby creating a conflict.

82558 Ethernet Controller

The PRO/100+ Dual Port Server adapter uses the Intel 82558 high-performance Ethernet controller. In some readme files or during driver installation, the PRO/100+ Dual Port Server adapter may be referred to as the "Intel 82558-based Ethernet PCI adapter," or similar.

Full Duplex Support

Full duplex is an optional setting that can improve adapter performance. To run the PRO/100+ Dual Port Server adapter at full duplex, you need to be connected to a full duplex switch.

If your TX switch supports auto-negotiation, the PRO/100+ Dual Port Server adapter and switch negotiate to select the best mode. If your TX switch does not support auto-negotiation or the switch is forced to full duplex (auto-negotiation is disabled), you must manually change the adapter to full duplex. Refer to the *Installation Guide* or the "Duplex Support" readme file for complete instructions.

Viewing the Readme Files

To view the readme files, insert the Configuration and Drivers disk in a drive, switch to that drive, and type:

`SETUP /README` Enter

Topics include:

- Installing adapter drivers
- Latest news and general adapter information
- Hardware specifications and cabling information
- Adapter installation and special configurations
- Running diagnostics
- Setting up Adapter Teaming options

Running SETUP.EXE

On DOS/Windows 3.1 computers, use the SETUP.EXE utility on the Configuration and Drivers disk to automatically install the DOS ODI driver, run diagnostics, get help with installation problems, and view adapter information and help files. Use the version of SETUP that comes on the disk with the PRO/100+ Dual Port Server adapter. Previous versions may not work. Be sure to run it under MS-DOS only, not in a DOS window.

If you run SETUP with network drivers already loaded, a dialog appears advising you to unload the network drivers. For DOS ODI clients, you can restart without unloading drivers (press F5 when DOS starts), or you can use the unload command from the DOS prompt. For example:

```
C:\vlm /u Enter
C:\ipxodi /u Enter
C:\e100bodi /u Enter
C:\lsl /u Enter
```

Note that unloading drivers must be done in the reverse order of their loading.

DMI-SNMP Support

DMI support is included on the Intel CD-ROM. For more information on installation and configuration see the readme files in the folders and sub-folders in the \DMI-SNMP folder.

DOS ODI support

Make sure you're using the most recent NetWare VLMs with the E100BODI.COM driver. Older VLMs may cause connection problems.

PCI Interrupts

Shared Interrupts

The PRO/100+ Dual Port Server adapter drivers support shared interrupts in most operating systems (except OS/2). If you think you have another PCI device that doesn't support shared interrupts (for example, a SCSI controller), contact its manufacturer for a shared interrupt driver. Or, try running your computer's CMOS Setup (BIOS configuration) program to assign a unique, non-shared interrupt to one of the PCI devices.

Configuring Interrupts

PCI computers automatically detect and configure PCI-compliant adapters while booting. The PRO/100+ Dual Port Server adapter interrupt and I/O address are automatically set by the BIOS each time you start your computer.

If you need to manually change the interrupt, refer to your computer user's guide for instructions. The adapter's SETUP and PROSet programs cannot modify the interrupt setting.

LANDesk® Traffic Analyst 2.0

If you're using LANDesk Management Suite 2.0 and a Novell DOS ODI client driver on your workstation, load RXMONSTK.COM (supplied by Novell) after loading LSL. Also, be sure you have updated VMON.386 to version 12-14-95 (or later). It supports the latest NetWare ODI client specification (v4.0). You can download the VMON.386 file from Intel's web site, support.intel.com.

NetWare Client 32 for Windows 95, DOS/Windows 3.1

When you install the Client 32 drivers from Novell, the PRO/100+ Dual Port Server adapter appears on the list of supported adapters. However, the listed driver is older—use the newer driver on the disk that ships with this adapter.

Please turn page...

NetWare 3.11 Servers

On NetWare 3.11 servers, the driver won't operate correctly unless you modify the server's STARTUP.NCF to include:

```
SET MAXIMUM PHYSICAL RECEIVE PACKET SIZE = 2048
```

This specifies the size for preallocated server buffers. Use the value shown or larger. See the NetWare 3.11 installation instructions for more details.

Note that the 3.2 spec driver for NetWare 3.11 servers is archived on Intel's support web site, support.intel.com. See the NetWare 3.11 README file for more information.

NetWare 3.12 Servers

If you're having problems installing a second adapter card on a NetWare 3.12 server, load the adapter with I/O map mode set to 1.