



Read Me

Gigabit Server NICs

3C996B-T and 3C996-SX

This Read Me file provides information to help you obtain maximum performance from your 3Com Gigabit Server NICs.

This information is updated regularly on the following 3Com Web site:
<http://support.3com.com>.

Windows/DOS Issues

DOS Diagnostic Failure

The DOS diagnostic B57DIAG.exe will fail if EMM386.exe is loaded in low memory. Do not use EMM386.exe when running the DOS diagnostic program.

Removing the Physical Interface in Generic Trunking Mode in Windows NT 4.0 and Windows 2000

If you plan to remove the primary team member in the GEC/FEC team and you are using 3Com Advanced Server Features, use the following procedure to update the MAC address of the modified GEC team.

Failure to use the following procedure might result in duplicate MAC addresses on the network.

Windows 2000

- 1 Right-click *My Network Places* and choose *Properties*.
- 2 Open the properties for the virtual NIC.
- 3 Open the Internet Protocol (TCP/IP) properties.
- 4 Write down the IP address information, and then click *Cancel*.
- 5 Open the Advanced Server Features driver properties.
- 6 Remove the NIC(s) from the team by switching it from Team Member to Unassigned Adapter.
- 7 Click *Save*.
- 8 Type the filename. Click *OK* to save the team information to be used during a restore.

- 9 Select the team from which you removed the NIC, and then click *Delete Team*. Click *OK* to remove the team.
- 10 Click *OK* to make the changes.
- 11 Open the Advanced Server Features driver properties.
- 12 Click *Restore*.
- 13 Type the filename you used during the save, and then click *OK*.
- 14 Click *OK* twice to make the changes.
The virtual NIC appears in the Network and Dialup Connections window.
- 15 Open the properties for the virtual NIC, and then reset the IP address for the virtual NIC. Click *OK* twice to bring up the team.

Windows NT

- 1 Right-click *Network Neighborhood*, and then choose *Properties*.
- 2 Click the *Protocols* tab.
- 3 Open the TCP/IP Protocol properties.
- 4 Write down the IP address information for the virtual NIC, and then click *Cancel*.
- 5 Open the Advanced Server Features driver properties.
- 6 Remove the NIC(s) from the team by switching it from Team Member to Unassigned Adapter.
- 7 Click *Save*.
- 8 Type a filename. Click *OK* to save the team information to be used during a restore.
- 9 Select the team from which you removed the NIC, and then click *Delete Team*. Click *OK* to remove the team.
- 10 Click *Close*.
- 11 When the system prompts you to restart, click *Yes*.
- 12 After the machine restarts, right-click *Network Neighborhood* and choose *Properties*.
- 13 Click the *Protocols* tab.
- 14 Open the Advanced Server Features driver properties, and then click *Restore*.
- 15 Type the filename you used during the save, and then click *OK*.
- 16 Click *OK* to make the changes.
- 17 Click *Close*, and then reset the IP address on the virtual adapter.
- 18 When the system prompts you to restart, click *Yes*.

Installing DNS and/or DHCP Server Service in Windows 2000

3Com has observed during testing that a warning message(s) will appear if you install DNS and/or DHCP Server Service on a Windows 2000 server where the Advanced Server Features driver is already installed. The DNS and/or DHCP Server Service installer detects dynamically assigned IP addresses for the Advanced Server Features miniports and warns that you should use static IP addresses. 3Com recommends that you click *OK* to ignore these messages. Do not assign static IP addresses.

Remote Wake Up Support In Windows 2000

3Com has observed during testing that Remote Wake Up for Windows 2000 works only at 10 Mb and not at 100 Mb or at 1000 Mb.

Speed and Duplex Options for Fiber NIC

Windows

When using the fiber Gigabit Server NIC, only two options are available for “Speed and Duplex” under Windows: Auto and 1000 Mb Full.

DOS

When you use the fiber Gigabit Server NIC, and launch the B57UTIL.EXE to reset the PXE speed, the DOS diagnostics program erroneously displays the following NIC speeds as options: Auto, 10half, 10full, 100half, 100full. Actually, the only valid option for the fiber Gigabit Server NIC in DOS mode is **Auto**.

Window NT Loading Error

If an error occurs when installing the Advanced Server Features on a system running Windows NT, uninstall the Microsoft Loopback Adapter before installing the Advanced Server Features. If needed, you can then reinstall the Microsoft Loopback Adapter.

NetWare Issues

NetWare Version Support

3Com Gigabit Server NICs support NetWare versions 4.2, 5.x, and 6.x only. NetWare versions 4.11 or below are not supported by these NICs.

Configuring VLANs in Novell NetWare

3Com has observed during testing that as many as 64 VLANs per team are configurable and operable in Novell NetWare operating systems.

Linux Issues

RedHat Linux 6.2 IP Address Loss

Servers running RedHat Linux 6.2 may lose their IP address when under stress. This is caused by the Built-in Pump DHCP Client included in version 6.2 of RedHat Linux.

Removing the Physical Interface in Generic Trunking Mode in Red Hat Linux

If you plan to remove the primary team member in the GEC/FEC team and you are using Advanced Server Features, use the following procedure to update the MAC address of the modified GEC team.

Failure to use the following procedure might result in duplicating MAC address in the network



NOTE: If the removed physical interface does not participate in any traffic, no problems will occur.

To properly remove a physical interface in a Generic Trunking team, follow these steps:

- 1 To backup the original team configuration script, type:

```
cp /etc/basp/team-gec /etc/basp/backup-gec
```



NOTE: The name of the configuration script is "team-gec."



NOTE: The name of the backup script is "backup-gec." (The name of the backup script must NOT be prefixed with "team-".)

- 2 Modify the team configuration script to remove the physical interface.

- 3 To stop the running team, type:

```
/etc/basp/baspif /etc/basp/backup-gec stop
/etc/basp/baspteam /etc/basp/backup-gec del
```

- 4 To restart the team again, type:

```
/etc/basp/baspteam /etc/basp/team-gec add
/etc/basp/baspif /etc/basp/team-gec start
```

Miscellaneous Issues

DynamicAccess Incompatibility

If DynamicAccess is installed on a system that already has the Broadcom Advanced Server program installed, problems may occur. It is recommended that you do not install DynamicAccess on any system running the Broadcom Advanced Server program.

Hot-Plug Service

Contact your OEM to acquire the needed Hot-Plug Service files.

Compaq ProLiant 7000 Server

3Com has observed during testing that the 10/100/1000 PCI-X Server NIC may not work reliably if installed in bus 2 or bus 3 (slot 5, slot 6, slot 7, slot 8, or slot 9) on the Compaq ProLiant 7000 server. 3Com recommends that you install the NIC only in bus 1, slot 3 or slot 4.

Installation Diskettes for 3Com Management Programs

3Com has observed during testing that because of the size of 3Com Management Programs, installation diskettes can not be created for the programs.

EFI Diagnostics Tool

This file describes the EFI diagnostic tool for Broadcom's BCM5700 10/100/1000 Mbps Ethernet Network Interface Controller. The tool is released as a standard EFI application format.

- b57diag32.efi -- BCM5700 diagnostic for IA32 EFI platform.
- b57diag64.efi -- BCM5700 diagnostic for IA64 EFI platform.

For details on history of changes on this diagnostics, please refer to the release.txt from b57diag.exe.

Diagnostic Usage

- 1 Boot into EFI shell.
- 2 To run the standard diagnostic tests, the file "cpu.bin" must be in the same directory.
- 3 In IA64 environment, run "b57diag64" to execute all standard diagnostic tests on all BCM5700 NICs installed in the system.
For additional options, run "b57diag64 -help". In IA32 environment, run "b57diag32".

Revision History

Version 1.0.0 (06/01/01) First release.

Version 1.1.0 (07/01/01) Renamed it to b57diag.efi. Included IA64 port. Confirmed eeprom programming functionality. Tested with BCM5701 A0 cards.

Version 1.1.1 (07/06/01) Resolved CQ1896: fixed Group A or B test failures on HP IA64. Eliminated the intermittent lockup problem just before running Group D tests.

Caveats

- There are some DMA issues in the multiple processor environment on IA64, resulting in failures in some diagnostic tests. It is recommended to run this tool in a single processor machine.
- In EEPROM programming, if the MAC address needs to be programmed, it should be included as one of the options (-mac xxxxxxxxxxxx).

