



Installing the Cisco Media Convergence Server Network Teaming Driver with Operating System Version 2000.2.4 and 2000.2.5

The Cisco Media Convergence Server (MCS) Network Teaming Driver installation enables the functionality for the failover fault-tolerant network adapters.

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Corporate Headquarters:
Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134-1706 USA

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Locating Related Cisco CallManager and Operating System Documentation

You can obtain Cisco CallManager and operating system documentation by clicking the URLs in [Table 1](#) and navigating to the appropriate documentation.

Table 1 Quick Reference for URLs

Related Information and Software	URL and Additional Information
Operating system documentation and Virtual Network Computing (VNC) documentation (not readme documentation)	http://www.cisco.com/univercd/cc/td/doc/product/voice/iptel_os/index.htm
Cisco MCS data sheets	http://www.cisco.com/en/US/products/hw/voiceapp/ps378/index.html
Software-only servers (IBM, HP, Compaq, Aquarius)	http://www.cisco.com/en/US/products/hw/voiceapp/ps378/prod_brochure_list.html
<i>Cisco CallManager Compatibility Matrix</i>	http://www.cisco.com/univercd/cc/td/doc/product/voice/c_callmg/index.htm
Cisco CallManager documentation, including installation and upgrade documentation	http://www.cisco.com/univercd/cc/td/doc/product/voice/c_callmg/index.htm
Cisco CallManager backup and restore documentation	http://www.cisco.com/univercd/cc/td/doc/product/voice/backup/index.htm
Support patches and readme documentation	http://www.cisco.com/kobayashi/sw-center/sw-voice.shtml Note The operating system and SQL Server 2000 support patches post on the voice products operating system cryptographic software page. You can navigate to the site from the Cisco CallManager software page.

Server and Operating System Requirements

The following servers support the Network Teaming Driver:

- Cisco MCS-7825H-2.2 (or later)
- Cisco MCS-7835H-2.4 (or later)
- Cisco MCS-7845H-2.4 (or later)
- Cisco MCS-7835-1266
- Cisco-verified, customer-provided HP DL380 G2 server
- Cisco-verified, customer-provided HP DL380 G3 server, including single and dual processors
- Cisco-verified, customer-provided HP DL320 G2 server

Cisco requires that you have installed Cisco-provided operating system version 2000.2.4 or later before you install this driver.

Preinstallation Tasks and Considerations

Review the following information before you install the driver:

- Cisco requires that you have installed Cisco-provided operating system version 2000.2.4 or later before you install this driver.
- You do not need to reboot the server after you perform driver installation and configuration tasks. If you want to dissolve the network team or uninstall the driver, you must reboot the server for the changes to take effect.
- Perform all installation and configuration tasks on every server in the cluster where the driver is supported.



Caution

Cisco strongly recommends that you install the network driver between the initial operating system and Cisco CallManager installation. If you do not perform the tasks in the recommended order and decide to install the driver after the application upgrade, perform the tasks that are indicated in the document and the tasks that are in the [“Installing the Driver After the Cisco CallManager Installation/Upgrade” section on page 7](#).

Perform the following procedure before you install the driver:

Procedure

- Step 1** After you install Cisco-provided operating system 2000.2.4 on every server in the cluster, right-click **My Network Places**.
- Step 2** Right-click **Local Area Connection**; choose **Properties**.
- Step 3** Choose the **Internet Protocol (TCP/IP)** component and click the **Properties** button.
- Step 4** In [Table 2](#), write down the IP information, including the IP address, subnet mask, the default gateway, and the DNS/WINS settings.



Tip

To obtain the WINS setting, click the **Advanced** button for WINS settings.

Table 2 *Internet Protocol Information for the Primary Network Card*

Information	Your Entry
IP address	
Subnet mask	
Default gateway	
DNS settings	
<ul style="list-style-type: none"> • Primary • Secondary 	

Table 2 Internet Protocol Information for the Primary Network Card (continued)

Information	Your Entry
WINS settings <ul style="list-style-type: none"> • Primary • Secondary 	
Link speed setting	
Duplex setting	

- Step 5** Click **Cancel** after you record the information.
- Step 6** In the Local Area Connection window, click the **Configure** button.
- Step 7** Click the **Advanced** tab.
- Step 8** In the Property pane, locate the speed and duplex settings (one or two different settings, depending on the server type).
- Step 9** In [Table 2](#), write down the speed and duplex settings value for the primary network card.
- Step 10** Right-click the second network card connection, **Local Area Connection 2**.
- Step 11** Choose **Enable**.



Note The Cisco-provided operating system version 2000.2.4 or later installation automatically disables the second network card. You must enable it now.

Installation and Configuration Tasks

To install the Network Teaming Driver, perform the following procedure:

Procedure

- Step 1** Using Windows Explorer, browse to **C:\utils\dualnic\HPTeam.exe**.
- Step 2** Double-click the executable to install the driver.
- Step 3** In the HP Teaming Driver dialog box, click **Yes**.
- Step 4** In the Welcome window, click **Next**.
- Step 5** The window indicates the progression of the installation. After the installation completes, press any key to close the window.

Installation Verification Tasks

- Step 6** Right-click the CPQTeam or HP Network icon in the Windows 2000 system tray and choose **Launch CPQTeam** or **Launch HP Network**.
- Step 7** Choose the network team (named Compaq Network Team #1 by default) and click **Properties**.
- Step 8** Verify that the network team is set to **Fault Tolerant** mode and that the redundancy control is set to **Fail on Fault** mode.

Step 9 Click **OK**.

Configuration Tasks

Step 10 Choose **Server Adapter Port 1** (or a variation of that choice).

Step 11 Click **Properties**.

Step 12 Choose **Speed/Duplex Setting** and choose the setting that you recorded in [Table 2](#).

Step 13 Click **OK**.

Step 14 Repeat [Step 11](#) through [Step 13](#) for **Server Adapter Port 2** (or a variation of that choice).

Step 15 Click **OK**.

Step 16 Right-click **My Network Places**; choose **Properties** for the Local Area Connection.

An additional network card, Local Area Connection 3, displays in the window, and the CPQTeam or HP Network icon displays in the Windows 2000 System Tray.

Step 17 Right-click the teamed connection; choose **Properties**.

Step 18 Choose the **Internet Protocol (TCP/IP)** option and click the **Properties** button.

Step 19 Enter the information from [Table 2](#), including the IP address, the subnet mask, the default gateway, and the DNS/WINS settings.



Tip

To enter the WINS setting, click the **Advanced** button for WINS settings. After you enter the information, make sure that you click **OK**.

Step 20 After you enter the information, click **OK**.

Step 21 Click **OK**.

Step 22 Close the Network and Dial-up Connections window.



Note

You do not need to reboot the server.

Step 23 Perform all teaming procedures on every server in the cluster where the teaming driver is supported.

Step 24 Perform Cisco CallManager installation tasks. To obtain the document, see [Table 1](#).

Dissolving the Network Teaming Driver

When you dissolve the driver, you disassociate the two NICs and the virtual NIC that is used for the driver. The Teaming drivers remain installed, but they are no longer configured or used. The server will only use NIC #1 for IP telephony.

To dissolve the Network Teaming Driver, perform the following procedure:

Procedure

Step 1 In the system tray, double-click the CPQTEAM or HP Network icon.

Step 2 Click **Compaq Network Team #1**.

- Step 3** Click **Dissolve**.
- Step 4** Click **OK**.
- Step 5** Click **Yes** to apply changes.
- Step 6** Click **Yes** to reboot.
- Step 7** After the server reboots, disable the second NIC.

**Caution**

Failing to disable the second NIC may result in two IP addresses being assigned to the server. Assigning two IP addresses to the Cisco CallManager server may cause a loss of service.

Uninstallation Tasks

When you uninstall the driver, you delete the drivers from the server. The server will only use NIC#1 for IP telephony.

To uninstall the network teaming driver, perform the following procedure:

Procedure

- Step 1** Right-click **My Network Places** and choose **Properties**.
- Step 2** Right-click any active network card connection and click **Properties**.
- Step 3** Choose **Compaq Network Teaming and Configuration** or **HP Network Teaming and Configuration** and click **Uninstall**.
- Step 4** Click **Yes** to uninstall the driver.
- Step 5** Reboot the server for the changes to take effect.
- Step 6** After the server reboots, disable the second NIC.

**Caution**

Failing to disable the second NIC may result in two IP addresses being assigned to the server. Assigning two IP addresses to the Cisco CallManager server may cause a loss of service.

Uninstallation Verification

Perform the following procedure to verify that you uninstalled the driver:

Procedure

- Step 1** Right-click **My Network Properties** and choose **Properties**.
In the list that displays, the network team should not appear.
 - Step 2** Right-click the primary network card connection, which is, by default, Local Area Connection, and choose **Properties**.
 - Step 3** Choose **Internet Protocol (TCP/IP)** option and click **Properties**.
 - Step 4** Verify that the settings from [Step 4](#) in the “[Preinstallation Tasks and Considerations](#)” section on [page 3](#) display.
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Installing the Driver After the Cisco CallManager Installation/Upgrade

If you install the driver after the Cisco CallManager installation/upgrade, perform the Network Teaming Driver installation during a scheduled maintenance window.



Caution

During the driver installation, the server loses network connectivity and causes call-processing interruptions to occur.

Perform the following procedure:

Procedure

- Step 1** Open Register Editor by choosing **Start > Run > Regit32**. Click **OK**.
 - Step 2** Browse to `\\HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\CPQTeam`.
 - Step 3** Double-click **Group**.
 - Step 4** Enter **NDIS CDP**; click **OK**.
 - Step 5** Browse to `\\HKEY_LOCAL_MACHINE\SYSTEM\CurrentControl\Services\CPQTeamMP`.
 - Step 6** Double-click **Group**.
 - Step 7** Enter **NDIS CDP**; click **OK**.
-

Obtaining Documentation

Cisco provides several ways to obtain documentation, technical assistance, and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

Cisco.com

You can access the most current Cisco documentation on the World Wide Web at this URL:

<http://www.cisco.com/univercd/home/home.htm>

You can access the Cisco website at this URL:

<http://www.cisco.com>

International Cisco websites can be accessed from this URL:

http://www.cisco.com/public/countries_languages.shtml

Documentation CD-ROM

Cisco documentation and additional literature are available in a Cisco Documentation CD-ROM package, which may have shipped with your product. The Documentation CD-ROM is updated regularly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual or quarterly subscription.

Registered Cisco.com users can order a single Documentation CD-ROM (product number DOC-CONDOCCD=) through the Cisco Ordering tool:

http://www.cisco.com/en/US/partner/ordering/ordering_place_order_ordering_tool_launch.html

All users can order annual or quarterly subscriptions through the online Subscription Store:

<http://www.cisco.com/go/subscription>

Ordering Documentation

You can find instructions for ordering documentation at this URL:

http://www.cisco.com/univercd/cc/td/doc/es_inpk/pdi.htm

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Networking Products MarketPlace:
<http://www.cisco.com/en/US/partner/ordering/index.shtml>
- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, USA.) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

Documentation Feedback

You can submit comments electronically on Cisco.com. On the Cisco Documentation home page, click **Feedback** at the top of the page.

You can send your comments in e-mail to bug-doc@cisco.com.

You can submit comments by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems
Attn: Customer Document Ordering
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Obtaining Technical Assistance

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, the Cisco Technical Assistance Center (TAC) provides 24-hour, award-winning technical support services, online and over the phone. Cisco.com features the Cisco TAC website as an online starting point for technical assistance.

Cisco TAC Website

The Cisco TAC website (<http://www.cisco.com/tac>) provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The Cisco TAC website is available 24 hours a day, 365 days a year.

Accessing all the tools on the Cisco TAC website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a login ID or password, register at this URL:

<http://tools.cisco.com/RPF/register/register.do>

Opening a TAC Case

The online TAC Case Open Tool (<http://www.cisco.com/tac/caseopen>) is the fastest way to open P3 and P4 cases. (Your network is minimally impaired or you require product information). After you describe your situation, the TAC Case Open Tool automatically recommends resources for an immediate solution. If your issue is not resolved using these recommendations, your case will be assigned to a Cisco TAC engineer.

For P1 or P2 cases (your production network is down or severely degraded) or if you do not have Internet access, contact Cisco TAC by telephone. Cisco TAC engineers are assigned immediately to P1 and P2 cases to help keep your business operations running smoothly.

To open a case by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553-2447

For a complete listing of Cisco TAC contacts, go to this URL:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

TAC Case Priority Definitions

To ensure that all cases are reported in a standard format, Cisco has established case priority definitions.

Priority 1 (P1)—Your network is “down” or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Priority 2 (P2)—Operation of an existing network is severely degraded, or significant aspects of your business operation are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Priority 3 (P3)—Operational performance of your network is impaired, but most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Priority 4 (P4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- The Cisco Product Catalog describes the networking products offered by Cisco Systems, as well as ordering and customer support services. Access the Cisco Product Catalog at this URL:
http://www.cisco.com/en/US/products/products_catalog_links_launch.html
- Cisco Press publishes a wide range of networking publications. Cisco suggests these titles for new and experienced users: Internetworking Terms and Acronyms Dictionary, Internetworking Technology Handbook, Internetworking Troubleshooting Guide, and the Internetworking Design Guide. For current Cisco Press titles and other information, go to Cisco Press online at this URL:
<http://www.ciscopress.com>
- Packet magazine is the Cisco quarterly publication that provides the latest networking trends, technology breakthroughs, and Cisco products and solutions to help industry professionals get the most from their networking investment. Included are networking deployment and troubleshooting tips, configuration examples, customer case studies, tutorials and training, certification information, and links to numerous in-depth online resources. You can access Packet magazine at this URL:
<http://www.cisco.com/go/packet>
- iQ Magazine is the Cisco bimonthly publication that delivers the latest information about Internet business strategies for executives. You can access iQ Magazine at this URL:
<http://www.cisco.com/go/iqmagazine>
- Internet Protocol Journal is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:
http://www.cisco.com/en/US/about/ac123/ac147/about_cisco_the_internet_protocol_journal.html
- Training—Cisco offers world-class networking training. Current offerings in network training are listed at this URL:
<http://www.cisco.com/en/US/learning/index.html>

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