



Using HP ProLiant Network Teaming Software with Microsoft® Windows® Server 2008 Hyper-V

HOWTO, 2nd edition

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Abstract

HP ProLiant Network Teaming Software allows ProLiant systems running Microsoft® Windows® Server 2008 Hyper-V to take advantage of network controller teaming technology. This paper describes, for system administrators and technicians, the method of software installation for implementing network controller teaming and it identifies known issues with teaming and Hyper-V software.

Introduction

Network interface controller (NIC) teaming is the process of grouping several physical network controllers into a single logical NIC. NIC teaming enhances fault tolerance by increasing the availability of a server's network connection. Multiple network paths also allow balancing network traffic for better performance.

Microsoft Windows Server 2008 Hyper-V is a scalable, hypervisor-based virtualization platform allowing efficient provisioning and management of virtual server workloads. NIC teaming and virtualized platforms can work together to enhance operational efficiency of large-scale enterprise systems.

Software requirements

Implementing NIC teaming on an HP ProLiant server in a Hyper-V environment requires the following:

- HP ProLiant Network Teaming Software (HP Network Configuration Utility (NCU) version 9.35 or greater), which is included with HP ProLiant Support Pack (PSP) 8.11 on the HP SmartStart CD and is also available as a download from <http://www.hp.com>
- Microsoft Windows Server 2008 Hyper-V

Before installing the teaming software, IT administrators should verify HP ProLiant server support by referring to the HP paper "Implementing Microsoft Windows Server 2008 Hyper-V on HP ProLiant Servers." This paper is available at the following URL:

http://h20000.www2.hp.com/bc/docs/support/SupportManual/c01516156/c01516156.pdf?jumpid=reg_R1002_USEN

Order of installation

To use HP ProLiant Network Teaming Software with Windows Server 2008 with Hyper-V, the software must be installed and enabled in the following order:

1. Install and enable the latest version of Hyper-V from Microsoft.
2. Install and enable the HP ProLiant Network Teaming Software.

NOTE

If the teaming software is installed first, the network adapters may cease passing traffic. The resolution to this issue is to uninstall both the HP teaming software and Hyper-V, reboot the server and then reinstall Hyper-V and the teaming software.

Uninstalling teaming software

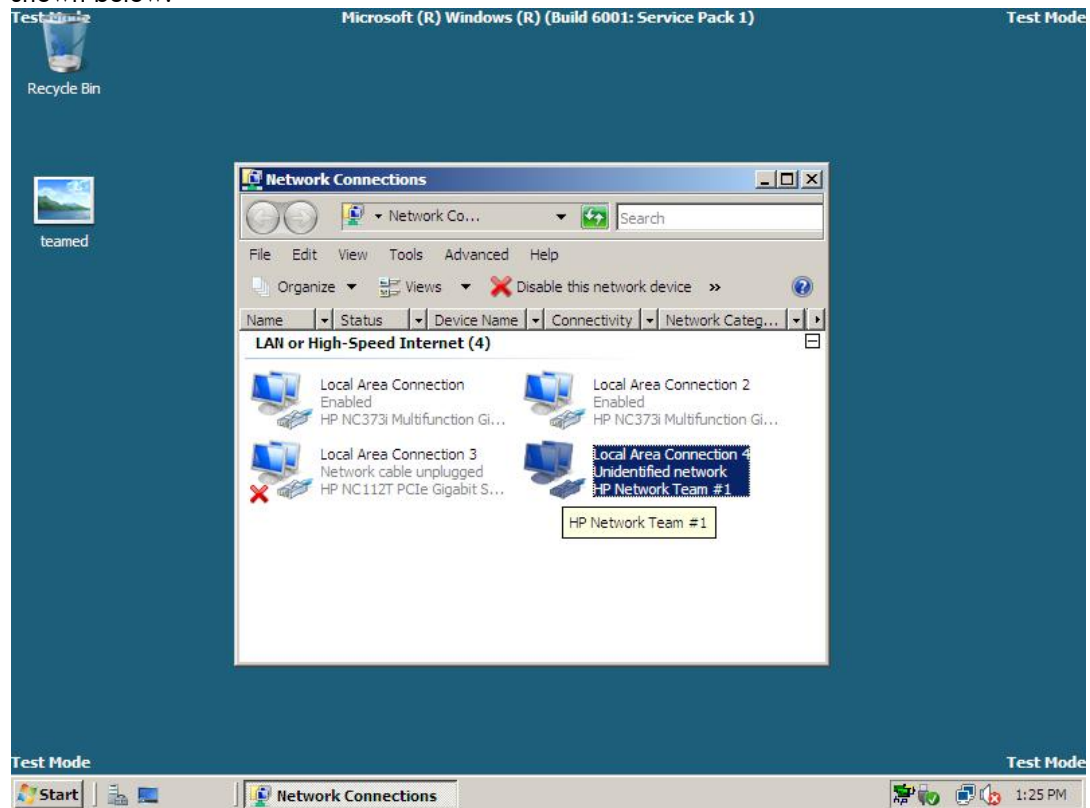
If HP ProLiant Network Teaming Software is already installed on a server, it must be removed (uninstalled) prior to installing and enabling Hyper-V.

NOTE

There is no known method of uninstalling HP ProLiant Teaming software on machines running Windows Server 2008 Server Core. A tool for removing the teaming software is under development and will be available on the HP website in the future. HP recommends that any machine designated to run Server Core, Hyper-V, and teaming be configured as such during the initial installation, using the specified order of installation described above.

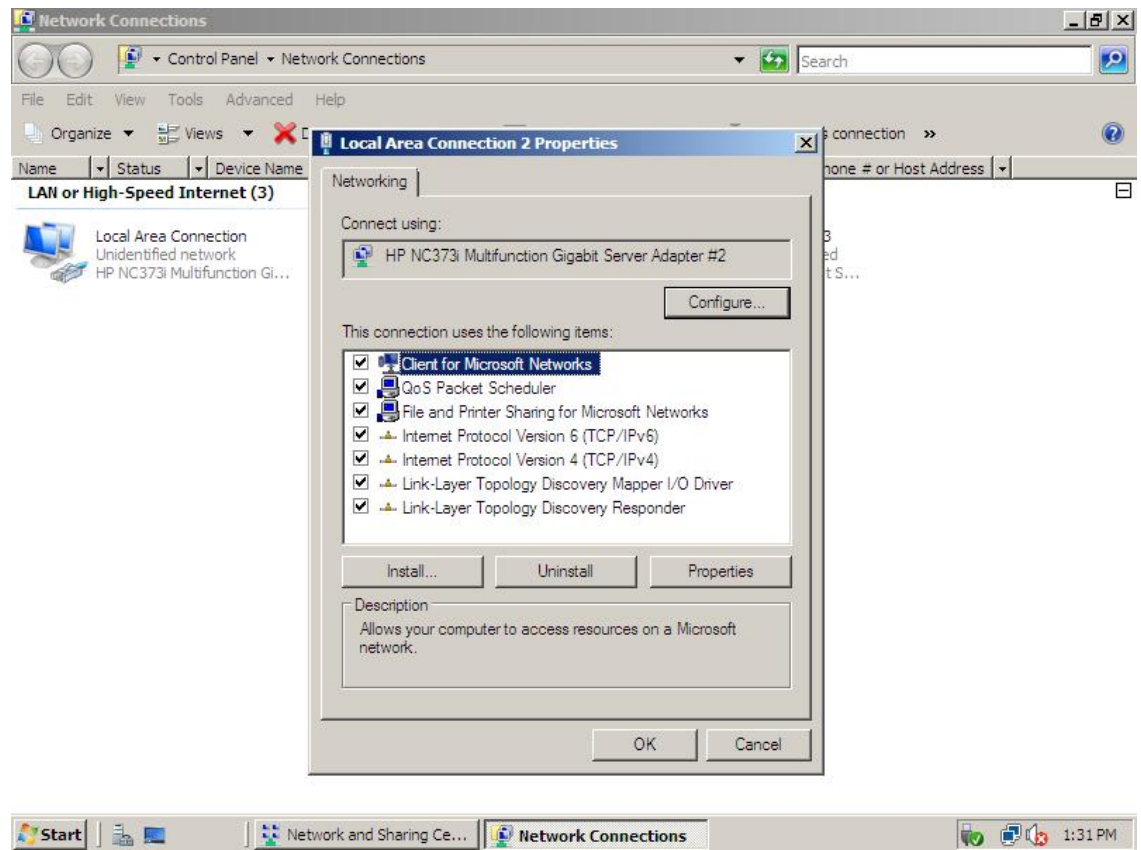
To uninstall HP ProLiant Network Teaming Software from a server, perform the following steps:

1. In Windows, go to **Start > Control Panel**.
2. Double-click on the Network Connections icon. The Network Connections window appears as shown below.



3. Right-click any Local Area Connection icon and select **Properties**.
4. In the list of protocol and services, select **HP Network Configuration Utility** and click **Uninstall**.
5. After the utility is uninstalled, the operating system typically asks if you want to reboot the server. Click **Yes**.

- After the system reboots, no instances of a teamed device should be present in the Network Control panel and no references to the HP Network Configuration Utility should be listed on the property sheet (shown below).



- If Hyper-V has been installed on the system, uninstall it now.

After removing the HP Network Configuration Utility and Hyper-V from the system, begin the re-installation. Install and enable Hyper-V first; then install the HP Network Configuration Utility.

VLANs with Hyper-V

Hyper-V supports the use of VLANs. To enable this functionality, perform the following steps:

- Install and enable Hyper-V in the operating system, and then install the NCU.
- Configure the NIC team(s).
- Configure VLANs for the team(s) by clicking on **vlan802.1q**.
- Assign VLAN tagging for this interface (essentially select a vlan id.) This creates a separate virtual network interface. It is useful to assign this interface a name appropriate to its purpose.
- Within server manager, open virtual network manager and select the name of the VLAN interface created in step 4.
- Under settings, find the network adapter option. Then select the interface and enable VLAN (checkbox) tagging. Use the number selected in step 4.

For more information

For additional information, refer to the resources listed below.

| Resource | Hyperlink |
|--|---|
| HP website for Hyper-V | www.hp.com/go/hyper-v |
| HP and Microsoft Frontline Partnership website | www.hp.com/go/microsoft |
| HP website for Windows Server 2008 | www.hp.com/go/ws2008 |
| HP white paper: HP ProLiant Network Adapter Teaming | http://h20000.www2.hp.com/bc/docs/support/SupportManual/c01415139/c01415139.pdf |
| HP integration note: Implementing Microsoft Windows Server 2008 Hyper-V on HP ProLiant Servers | http://h20000.www2.hp.com/bc/docs/support/SupportManual/c01516156/c01516156.pdf?jumpid=reg_R1002_USEN |
| Microsoft Hyper-V website | www.microsoft.com/hyper-v |
| Microsoft Hyper-V Server website | www.microsoft.com/hvs |
| Microsoft website for Windows Server 2008 Home page | www.microsoft.com/windowsserver2008/default.mspix |

Call to action

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