

HP ProLiant Networking – Configure Virtual Local Area Connections in Microsoft® Windows® environments white paper



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Abstract

This document describes how to configure Virtual Local Area Networks (VLAN) through the HP Network Configuration Utility (NCU) in Microsoft Windows. This paper is intended for IT professionals familiar with ProLiant network adapter teaming. For readers who are not already familiar with this technology, it is described in the white paper “HP ProLiant Network Adapter Teaming,” which is available at this URL: <http://www.hp.com/networking/info>.

Introduction

The HP Network Configuration Utility is a networking product designed and developed by HP. The NCU allows ProLiant server administrators to configure HP network adapters and HP network teams. VLANs allow a single network to be broken into multiple, virtual networks using the same hardware. You can configure VLANs using NCU for VLAN tagging. 802.1Q VLAN tagging is an industry standard used to insert a tag into the Ethernet header of a frame. This tag is interpreted by network devices and contains an identification field (VLAN ID) which defines the VLAN for this frame.

The NCU software allows VLANs to be configured on both stand-alone adapters and teams. Each team or network adapter can configure up to 64 VLANs where the VLAN ID is defined as a number between 1 and 4094.

Note

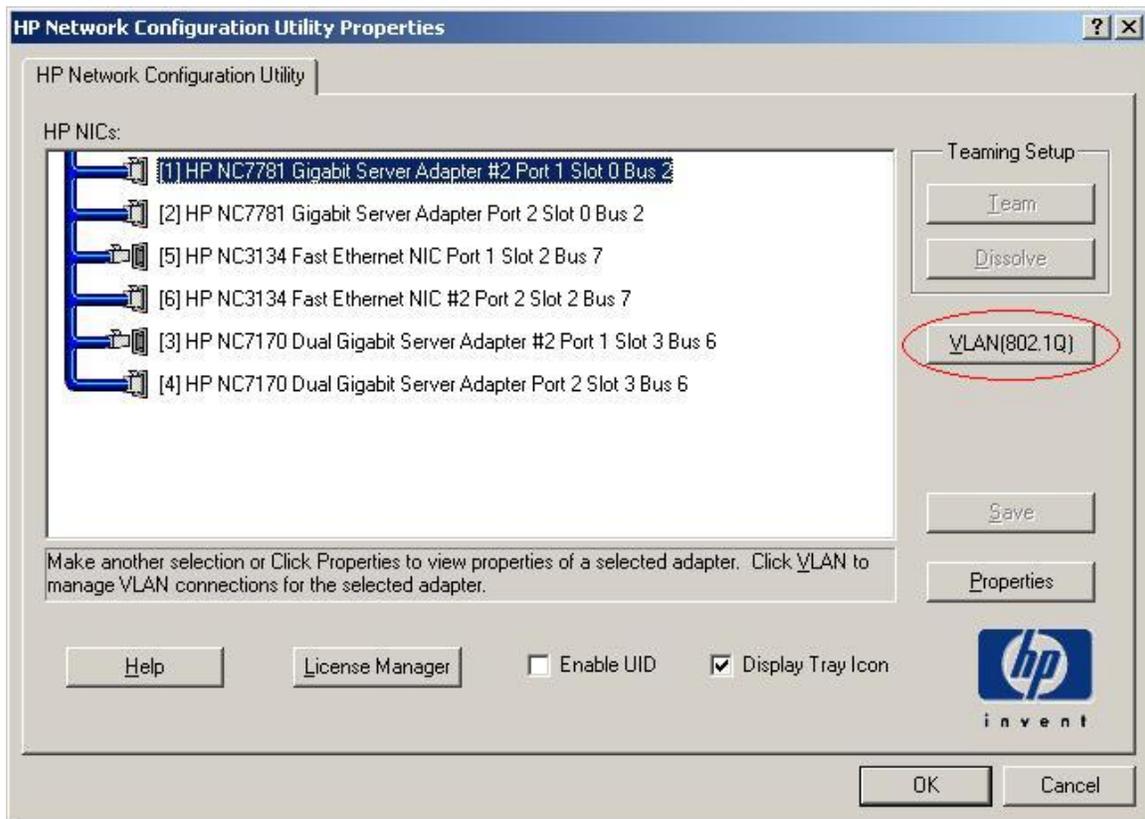
VLANs must be configured on both the server and connected network devices, for example a switch. This document describes the configuration required on the server. Refer to the documentation that came with the connected network devices for information about configuring them for VLANs.

Adding VLANs

Configuring a VLAN is simple with the familiar Network Configuration Utility used to set up network teaming. It requires completing these steps:

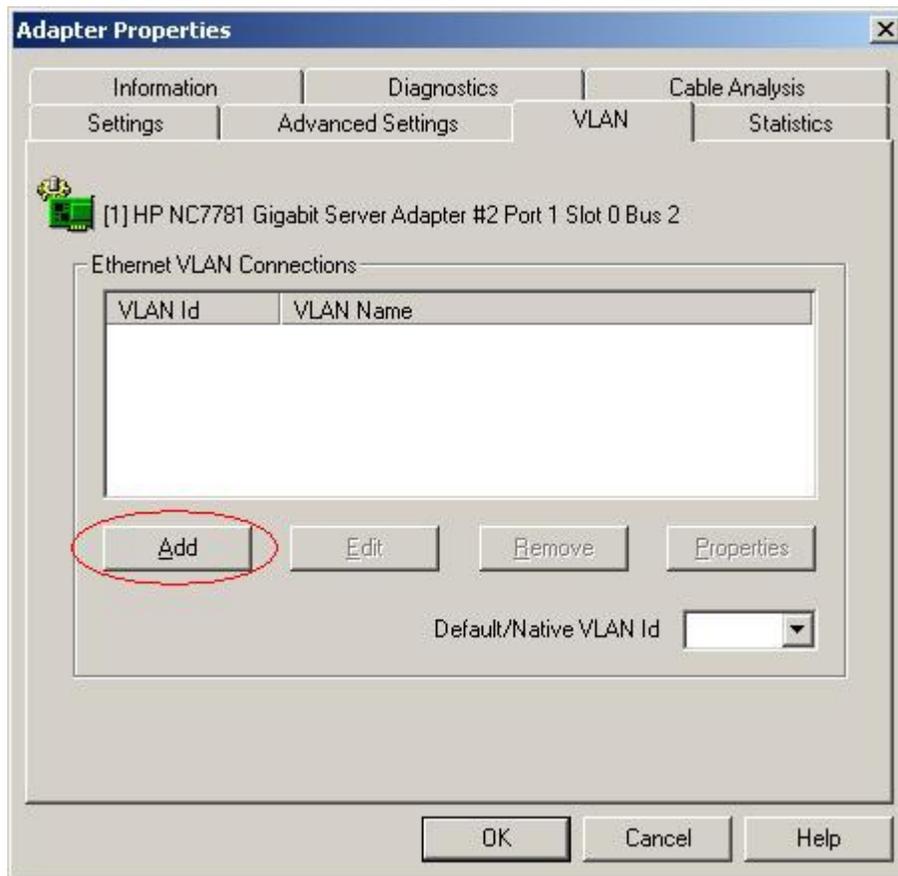
1. Open the HP Network Configuration Utility by clicking the tray icon.
2. Click the VLAN button to display the VLAN tab for the network adapter or team (Figure 1).

Figure 1. Using the Network Configuration Utility



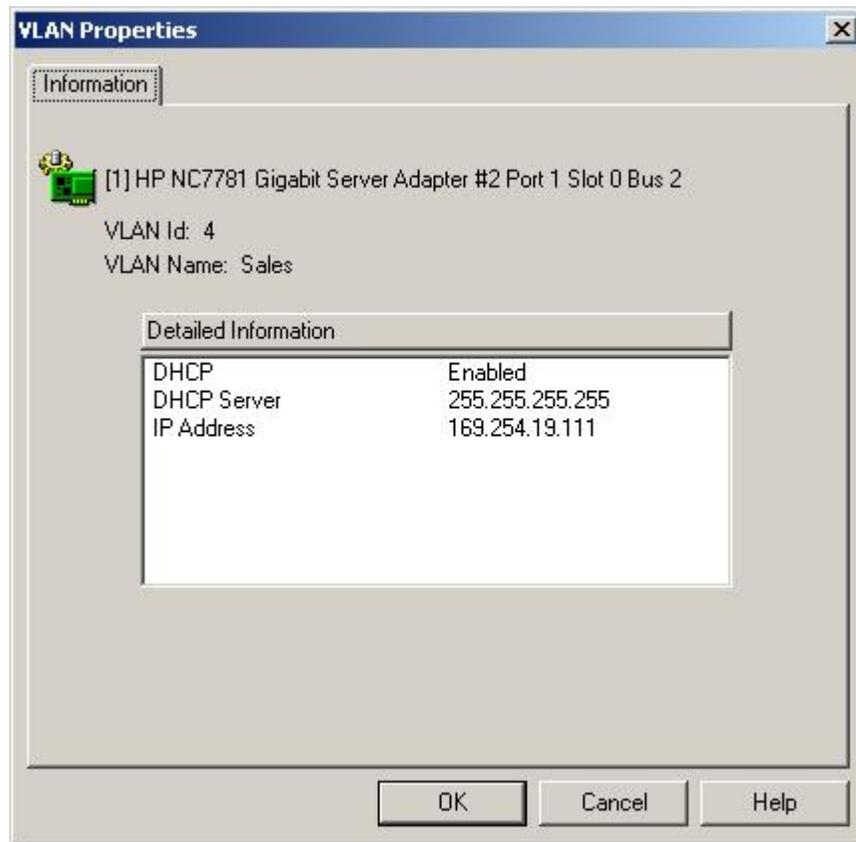
3. Click the Add button to display the VLAN properties page (Figure 2).
4. Insert the name of the VLAN and select a VLAN ID (1-4094) and click OK.
5. Click OK to return to the HP Network Configuration Utility Properties page.
6. Click OK to apply changes.

Figure 2. Using the Network Configuration Utility to Add VLANs



To change the VLAN name or VLAN ID after you have completed the preceding steps, click the Edit button on the VLAN properties page (Figure 2). To view detailed information about the VLAN you set up using the preceding steps, click the Properties button (Figure 3).

Figure 3. Using the Network Configuration Utility to view detailed information about a VLAN

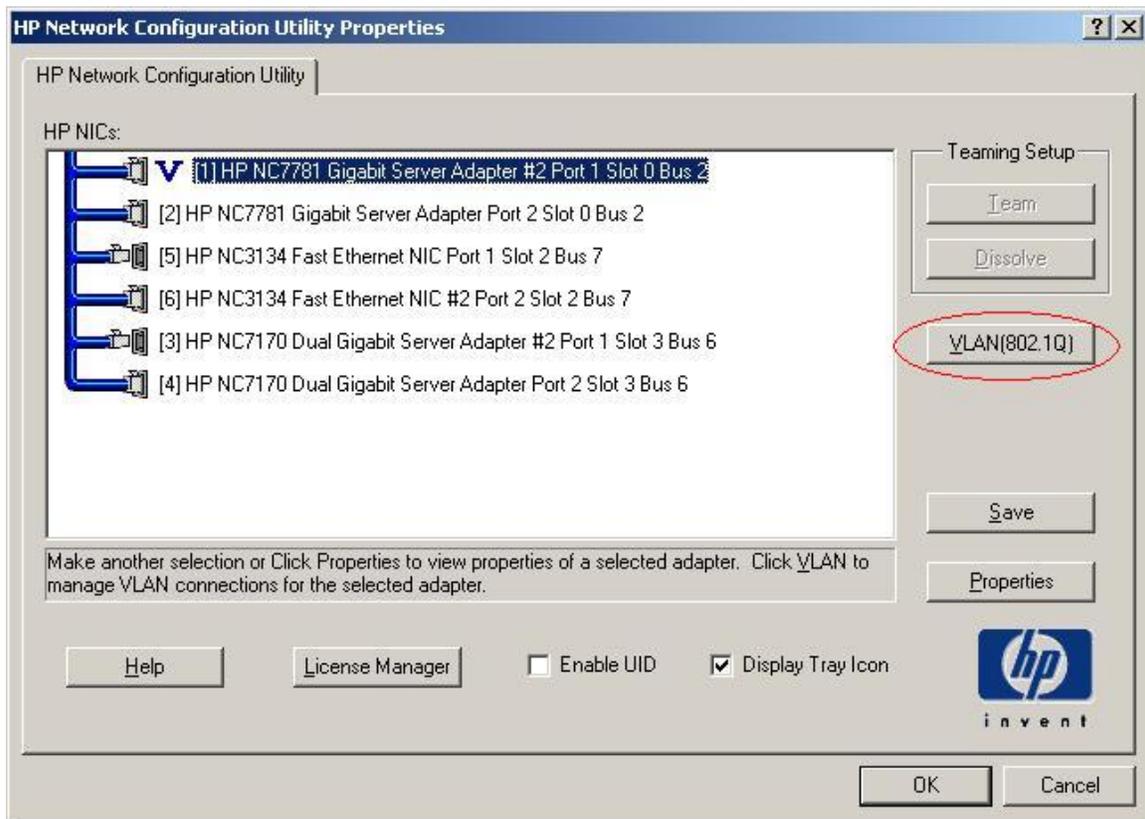


Removing VLANs

Removing a VLAN is simple with the familiar Network Configuration Utility used to set up network teaming. It requires completing these steps.

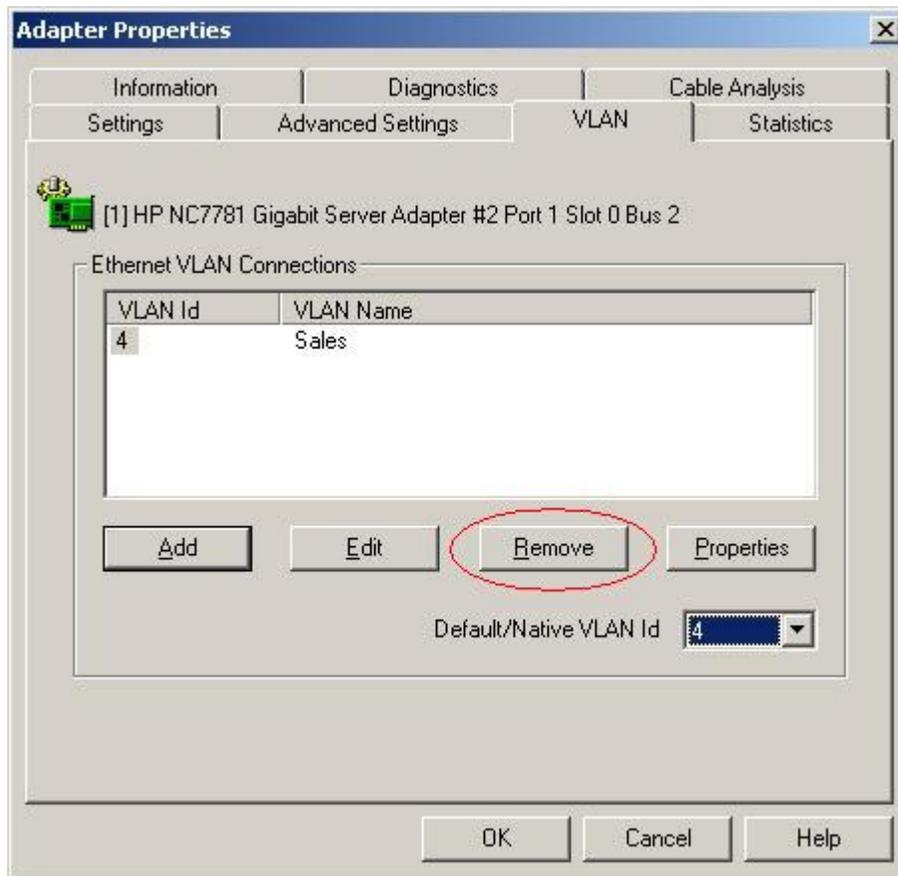
1. Open the HP Network Configuration Utility by clicking the tray icon.
2. Click the VLAN button to display the VLAN tab for the network adapter or team (Figure 4).

Figure 4. Using the Network Configuration Utility



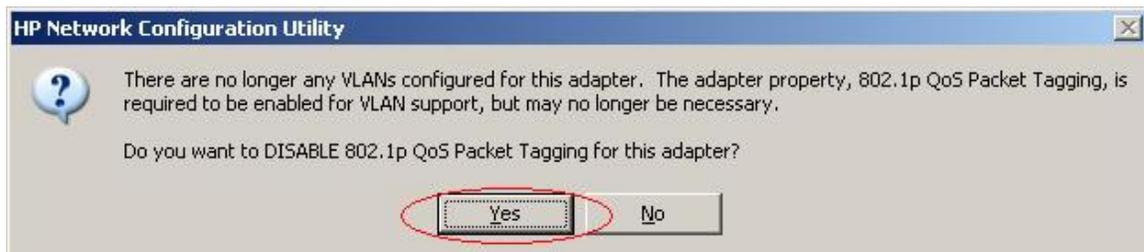
3. . Select a VLAN and click the Remove button and click OK (Figure 5).

Figure 5. Using the Network Configuration Utility to remove VLANs



4. For the last VLAN removed, a screen confirms disabling 802.1p QoS packet tagging for the adapter. Click Yes (Figure 6).
5. Click OK to apply changes

Figure 6. Using the Network Configuration Utility to confirm last VLAN removed.



Conclusion

The HP Network Configuration Utility software is a useful tool which can be used to configure multiple virtual networks on HP ProLiant servers.

For more information

For more information and other white papers about HP ProLiant network adapters, go to this web page: <http://www.hp.com/networking/info>

For information about how to purchase an HP ProLiant Essential Intelligent Networking Pack license, go to the HP website at www.hp.com/servers/proliantessentials/inp or contact your HP reseller.

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