HP ProCurve Manager Plus

Getting Started Guide

The all-in-one solution
for managing HP ProCurve
networks

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HP ProCurve Manager Plus

Getting Started Guide

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HP ProCurve Manager
HP ProCurve Manager Plus

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Introduction

HP ProCurve Manager Plus is a Windows-based network management solution shipped with all manageable HP ProCurve devices. It provides all of the tools you need to effectively manage your network: mapping and polling capabilities, device auto-discovery and topology, tools for device configuration and management, monitoring network traffic, and alerts and troubleshooting data for HP ProCurve networks.

The graphical interface in HP ProCurve Manager Plus provides a streamlined method for reviewing network activity and device information. It also provides a simplified interface for managing and configuring the network and devices, with easy access to device Web Agents and the Command Line Interface.

This document provides information on the following topics:

- **Installing HP ProCurve Manager Plus** – page 2
- **Registering HP ProCurve Manager Plus** – page 9
- **Customizing Your HP ProCurve Manager Plus** – page 17
- **The HP ProCurve Manager Plus Features** – page 18

Other documentation that is available with HP ProCurve Manager Plus includes:

- **Online Help** – context specific and topical help is available everywhere from within the user interface for HP ProCurve Manager Plus. The help also includes a table of contents, index, and search capabilities.

- *HP ProCurve Manager Plus Network Administrator's Guide* – detailed information about all of the program's features and uses. This guide is accessible from the Help menu in the program and is included as a PDF file on the HP ProCurve Manager Plus installation disk.

Installing HP ProCurve Manager Plus

HP ProCurve Manager Plus is available through two sources:

1. as a free 30-day trial copy delivered in the box when you purchase managed HP ProCurve switches

2. purchased from your HP ProCurve reseller

Both of these copies are installed the same. Both the client and the server parts of HP ProCurve Manager are installed from the CD by this installation process.

To install HP ProCurve Manager Plus, simply insert the product CD into the CD ROM drive in the computer that you want to use for your network management station. The program will auto install. If, for whatever reason, the auto install doesn't work, run the **setup.exe** program from the CD ROM drive.

Follow the instructions on the installation wizard screens to install HP ProCurve Manager Plus. The wizard will pop up several windows into which you will enter the following initial setup information:

■ **Administrator password** – for the security of your network, it is strongly advised that you put a password on the Administrator login.

■ **Initial Network Discovery settings** – to start the discovery of the network devices, you need to identify a starting device by its IP address or DNS name. For the discovery process to take place most efficiently, this device should be centrally located in your network, not an "edge" device that is primarily connected to end nodes.

■ **Default SNMP Read and Write Community Names and Telnet Username and Password** – by default, the Read and Write Community names are "public". Change these if you are using a different SNMP Community name in your network. Also, for certain configuration management features to operate correctly, you must specify the default Telnet username and password (if used).

- ■ **HTTP Proxy** – HP ProCurve Manager Plus needs external web access to retrieve the latest firmware files for HP ProCurve network devices from the HP ProCurve web site. If you are using an HTTP proxy for external web access, enter the proxy and port information.

Installation Notes

One Network Management Program per Computer

Because of resource conflicts that will occur if you have multiple network management tools running on the same computer, for example during discovery of the network devices, make sure you uninstall any other network management programs from your computer before installing HP ProCurve Manager or HP ProCurve Manager Plus.

Using ProCurve Manager on multi-homed computers

A **multi-homed** system is a server or PC that has more than one IP address. Generally this occurs when more than one network card is installed in the computer, but there are other ways that a computer can be multi-homed. Here are a few of the situations that meet this definition:

1. A computer with two or more network adaptors.

2. A computer with a traditional Ethernet network adaptor, plus a wireless adaptor.

3. A computer with only one network adaptor, but that is running some network tunneling software such as a VPN client. Generally what happens in this situation is that the computer appears to have two network interfaces (each with its own IP address). But in reality the system only has one physical adaptor, and the VPN client software emulates a second adaptor (while using the original adaptor under the covers).

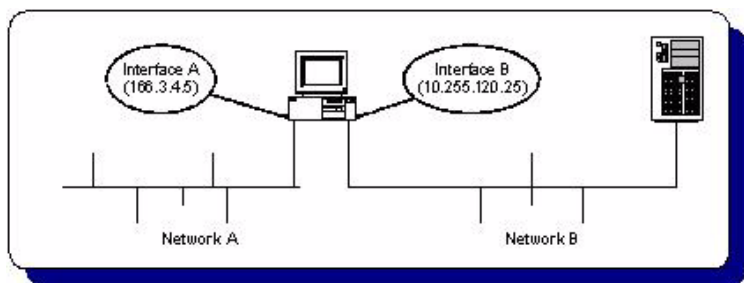An example of such a multi-homed system is shown below:

Figure 1. Example Multi-homed Computer

The Situation: When HP ProCurve Manager (either client or server) starts up, it attaches itself to the primary network interface of the computer. All network traffic between the client and server will be directed to the selected network interface.

In the diagram above, if the HP ProCurve Manager client application attaches itself to the 166.3.4.5 interface, and the HP ProCurve Manager server is running on the server on the right (somewhere on the 10.255.120.* network), there is no way that the client will ever connect successfully to the server.

The Solution: HP ProCurve Manager has a configuration file that you can change to correct this situation. To setup this file, follow these steps:

1. Find the **commIpAddr.txt** file. For the client, if you have installed the program in the default directory, this file exists in: **C:\Program Files\Hewlett-Packard\PNM\client\config**. For the server, you must create this file in: **C:\Program Files\Hewlett-Packard\PNM\server\config**.

2. Edit the file with a text-based editor (such as Notepad or Wordpad), and enter the IP address of the interface you want the application to attach to. For example for the network illustrated above, you would add the entry **10.255.120.25** as the first line of the file.

3. Save your changes.

4. Restart the application. If this is the ProCurve Manager client, just restart the application. If this is the ProCurve Manager server, you must restart the service from the Services control panel.

Adding Remote Client Stations

When you install HP ProCurve Manager Plus, both the server and client functions are installed on the computer. You can also install the client function on any number of other computers in your network that have network access to the server computer.

Note: Before installing remote client stations, you must first configure the server to allow access from each new client station. For more information, see "Configuring Client/Server Access Permissions" on the next page.

To install the client function on another computer, simply start a web browser, such as Microsoft Internet Explorer, on the computer and, for the URL, type in the IP address of the server computer followed by a colon and the port ID 8040. For example, if the IP address of the server computer is 10.15.20.25, then you would enter **http:\\10.15.20.25:8040** on the web browser address line. That will launch the client installation wizard and step you through the installation process.

Note: If you have multiple HP ProCurve Manager servers in the network, the first time that you run the remote client after installation, you will be prompted to select the server to which you want the client to attach. This server will be used each time the client program is launched.

You can change the server that is being accessed by selecting the "ProCurve Manager Server Discovery" option that was included when you installed the client. From your computer's Windows Start button, select **Programs**, then **HP ProCurve Manager**, and then **ProCurve Manager Server Discovery**.

ProCurve Manager Server Discovery

Configuring Client/Server Access Permissions

The Situation: The ProCurve Manager server maintains a list of authorized clients that are permitted to log into the server. By default, when the HP ProCurve Manager server is installed, the only client allowed to log in is the client on the same system as the server—that is, no remote clients are allowed.

The Solution: HP ProCurve Manager server has a configuration file that can easily be configured to allow access to any set of actual or potential clients. There are two ways that this file can be configured, depending on what you know about the clients that need to connect.

■ **IP addresses.** The **access.txt** file can be configured with a list of IP addresses specifying the clients that are authorized to log into the server. The file may contain as many addresses as needed, one IP address per line; or you may configure IP addresses with wildcards. DNS names are also allowed in the file, including DNS names with wildcards (this is useful for DHCP environments where a system's DNS name remains unchanged, although it's actual IP address may change from time to time). For example, below is an example of a valid **access.txt** file:

    10.255.124.84
    10.29.37.*
    10.*.*.*
    *.rose.hp.com
    system1.hp.com

To add an entry, open the **access.txt** file, which can be found in the config directory (**C:\Program Files\Hewlett-Packard\PNM\server\config**). Be sure to edit the file using a text-based editor such as Notepad or Wordpad. Edit the file as necessary, one entry per line, then save it. It is NOT necessary to restart the server; the changes will take effect immediately.

■ **Passwords.** There are situations where it is not possible to know ahead of time what IP address a potential client will have. This is particularly the case in situations where the client comes in through some sort of VPN, where the IP address of the client is assigned externally. To solve this problem it is possible to add client passwords to the **access.txt** file that correspond to specially configured clients. Note that even though you will be modifying the same **access.txt** file as for the IP Address method

(above), the two mechanisms can freely co-exist—that is, the **access.txt** file can contain a combination of IP addresses and passwords. To enable password access for a particular client, follow the following instructions:

1. Edit the **access.txt** file as described above, but instead of entering IP addresses or DNS names, just enter a selected password (on a line by itself). Save the file. It is not necessary to restart the server.

2. On the client (the client must already be installed), you must edit the **Riptide.cfg** file. This file exists in the config directory of the client (**C:\Program Files\Hewlett-Packard\PNM\client**). This file already has several entries in it. You must add a line similar to the following:

    PASSWORD=yourpassword

Do not change any of the other entries in the file, as they are necessary for the correct operation of the client.

A sample **Riptide.cfg** file, once edited with the password "procurve", would look like this:

    LEASE_LENGTH = 40000
    TRACING_PROPERTY_KEY = CoreServices.Main
    MANUFACTURER = Hewlett-Packard
    SERVICE_NAME = Typhoon
    COMPONENT_DB = config/Components.prp
    TRACING_DBFILE = config/Loggers.prp
    NETWORK_DELAY = 25000
    VERBOSE = true
    PASSWORD=procurve

3. Once you have saved the **Riptide.cfg** file, start the client and enter the address of the server in the "Direct address" field of the server search dialog. The client should now connect successfully to the server.

Starting HP ProCurve Manager Plus

After completing the installation, you can start HP ProCurve Manager Plus from the Windows Start menu. The program is located under **Programs -> HP ProCurve Manager**. There are two items under that structure:
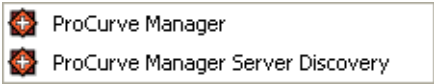
Click on **ProCurve Manager** to run the program. You can create a short cut on your Windows desktop for convenience when starting the program the next time.
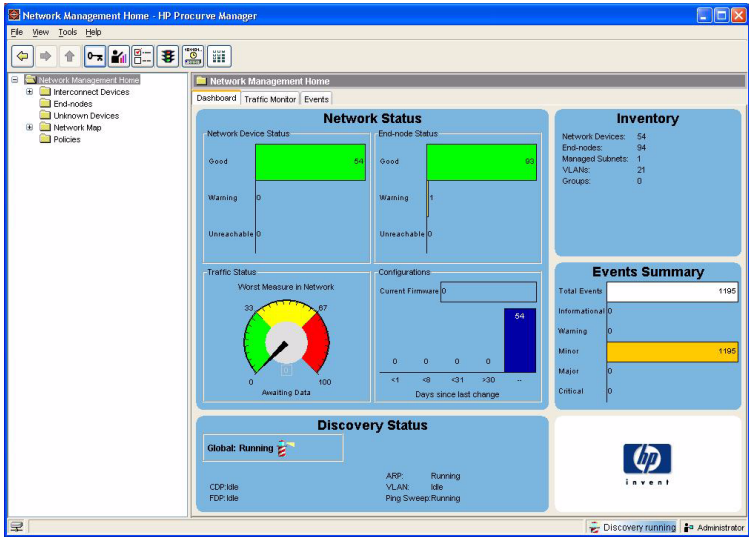

Figure 2. HP ProCurve Manager home page

Registering Your HP ProCurve Manager Plus

The HP ProCurve Manager installation CD includes a fully operable version of the PCM application, and a 30 day trial version of the PCM+ application. Until you have registered your PCM+, an Expiring License warning will be displayed each time you log in, similar to the following.
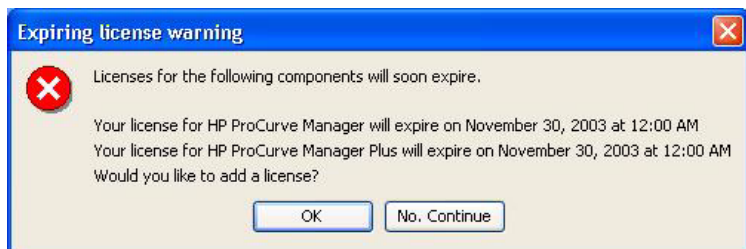

Figure 3. HP ProCurve Expiring License warning dialog

Click **No, Continue** to close the dialog and just start the program. Click **OK** to launch the License Administration dialog.

Note: If the following dialog box appears:

Then the **access.txt** file on the server has not been configured correctly to accept access from your client. See the section on "Configuring Client/Server Access Permissions" on page 6.
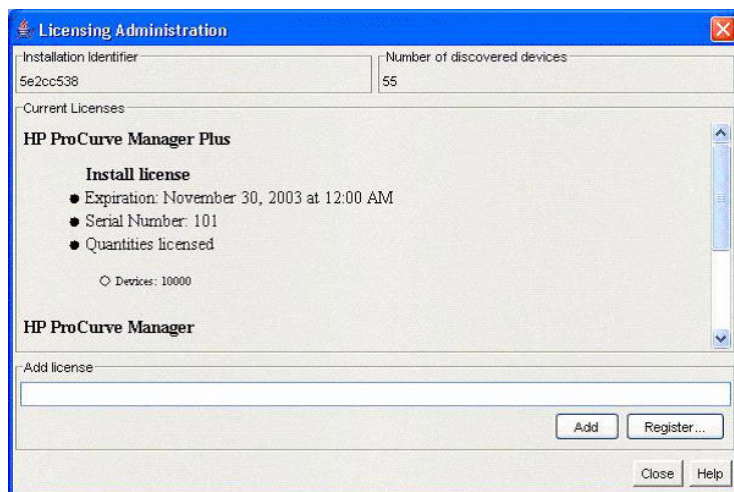

Figure 4. HP ProCurve License Administration dialog

You can also get to this screen from the Preferences window which can be accessed from the PCM Tools menu or by clicking on the Preferences icon in the tool bar. [icon]

To register the HP ProCurve Manager Plus software:

1. Make a note of the Installation Identifier in the upper left corner of the screen and of the Registration ID that is printed on the front of the HP ProCurve Manager Plus CD.

   Note: If you are attempting to register HP ProCurve Manager Plus from the CD that came in the box with your HP ProCurve networking device, you must first purchase a copy of HP ProCurve Manager Plus from your networking reseller to get the Registration ID. *You do not need to re-install the software from the purchased CD, but you need the Registration ID from that CD.*

2. Click **Register** to go to the HP ProCurve Registration Web site.

Figure 5. New User selection screen

3. Click the link under the "new users" section of the page to display the "User Information" page.

4. On the next screen that is displayed, fill in all of the fields with your information. The fields with bold lettered titles are the required fields. Then click **finish** to continue.

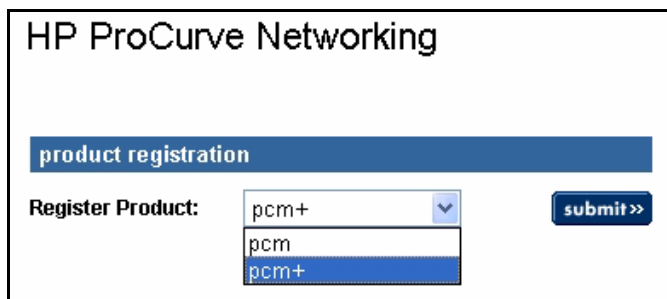The "Product Registration" page is then displayed.

Figure 6. Product registration page

5. Select **pcm+** from the pull down menu, then click **submit**.

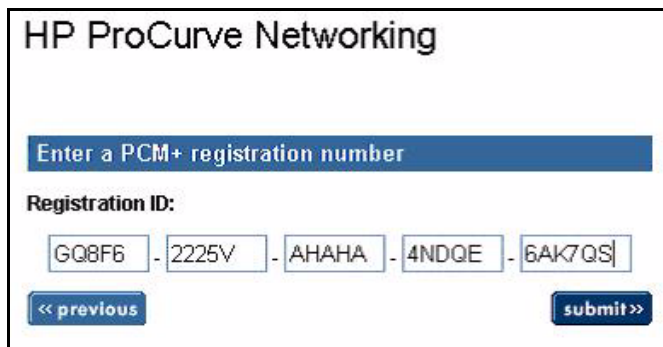   The "Enter a PCM+ registration number" window is displayed.

Figure 7. Entering a PCM+ registration number

6. Type in the Registration ID from your PCM+ software CD, then click **submit**.

   The "Register Software" window is then displayed.

Note: If you are registering just PCM (not PCM+), step 5 is skipped. You enter only an Install ID as shown in the next step.

Figure 8. Register software screen

7. Type in the Install ID as shown in the PCM Licensing Administration dialog (see figure 3). Re-enter the Install ID, to make sure it is correct. You can also enter a short description of this copy of the software, to identify the PC that it is being installed on, for example. Then click **finish**.

The "Register Information" window is displayed.

HP ProCurve Networking

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register information

Registration ID:	GQ8F6-2225V-AHAHA-4NDQE-6AK7QS
Install ID:	5E2CC538
Component Type:	plus
Key:	The key to install the license has been emailed to you.
Description:	Remote 2

finish »

Figure 9. Register information screen

8. Review the information to make sure it is correct, then click **finish**.

HP ProCurve Manager Plus will now automatically send you a license key to the email address you gave in the "User Information" window. The message will be similar to the one shown in figure 11.

The "Product Registration" window is then displayed.

HP ProCurve Networking

product registration

Register Product: pcm ▼ submit »

Click Here - to receive an email of all your product keys.

Install ID: 5E2CC538 **Description:** Remote 2

Registration ID:
GQ8F6-2225V-AHAHA-4NDQE-6AK7QS **Feature:** plus

Figure 10. Chance to register another product

9. Select another product to register, or close the registration window. It is not necessary to click on the "Click Here" hot spot.

    The license key has already been emailed. The message will look something like the following example:


```
Thank you for registering HP ProCurve Manager.  To activate your
license, simply enter the license Key provided in the table below.
Please refer to the HP ProCurve Manager Installation Guide for step
by step instructions.

Important Note:  The license key directly correlates with your
Installation ID.  Please ensure that the Installation ID listed
below matches that of your HP ProCurve Management Server.  Again,
please refer to the HP ProCurve Installation Guide for detailed
information.

Feature: plus
Install ID: 5E2CC538
Description: Remote 2
Key: GEEING-JGHLDI-IPLAPB-IHJBAM-DNNPKO-GBGDKK-JIFPPN-OCLFKB
```

Figure 11. Sample email message with registration key

10. You can copy and paste the License key into the PCM "Licensing Administration" dialog, as shown in the next screen.
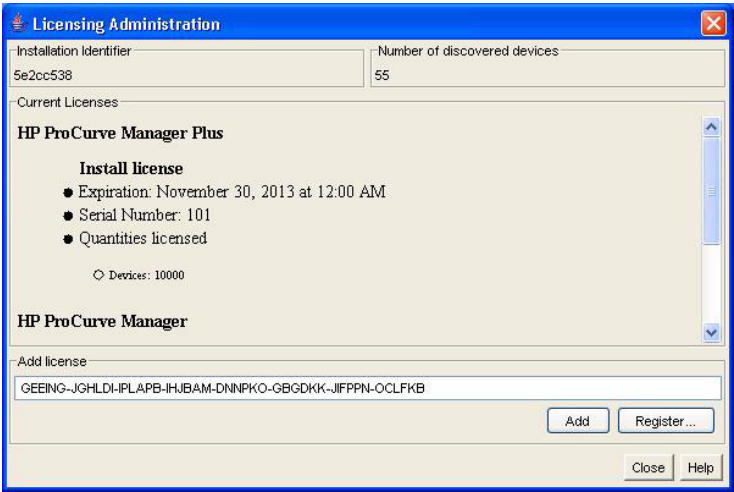

Figure 12. Adding the license key

11. Then click "Add" and the registration information on the screen will be updated to show that your product is registered for 10 years.

   Now you can proceed with your login.

Customizing Your HP ProCurve Manager Plus

Several default settings were established during installation of your HP ProCurve Manager Plus. You may want to customize these settings and take advantage of some additional options.

The customizable features include:

- **Managing user accounts** – you can change the password on the Administrator account, as well as adding other accounts and setting the passwords and security levels on these.

- **Set up the network discovery parameters** – HP ProCurve Manager Plus automatically discovers the devices in your network, lists them and displays them in network maps. You can modify how often the device discovery process occurs, manually add and remove subnets and devices from the discovery process, and change a number of other parameters that influence the discovery process.

- **Manage device configurations** – HP ProCurve Manager Plus has sophisticated tools for managing the configurations on your network devices. You can configure some of the parameters of the configuration management capabilities.

- **Set up Events/Statistics** – there are a number of parameters that you can configure that influence how HP ProCurve Manager Plus displays network event information and network traffic information.

For more information on these topics, please see the **HP ProCurve Manager Plus online help system**. There is a topic in the help called "Getting Started" that provides more information on these topics and has links to other help topics that give you detailed information for performing these customization tasks.

The HP ProCurve Manager Plus Features

HP ProCurve Manager offers the basic functionality required by most IT organizations for network management. HP ProCurve Manager Plus includes all these features as well as the set of advanced features described on the next page. For more detailed information on these features and their uses, please see the *HP ProCurve Manager Network Administrator's Guide* that is included on the product CD.

Basic Features – with PCM

Network status summary: Upon boot-up, a Network Status screen displays high-level information on network devices, end nodes, events, and traffic levels, all on one screen. From here, you can drill down on any one of these areas to get specific details.

Alerts and troubleshooting: An Events Summary displays alerts and categorizes them by severity, making it easier to track where bottlenecks and issues exist in the network. Alert details provides information on the problem, even down to the specific port.

Automatic device discovery: Customized for fast discovery of all HP ProCurve manageable network devices. You can also define specific IP subnets and VLANs on which to perform discovery.

Network Topology and mapping: Automatically creates a map of discovered network devices. Maps are color-coded to reflect device status and can be viewed at multiple levels (physical view, subnet view, or VLAN view).

Device management: Many device-focused tasks can be performed directly by the software, or you can access web and command-line interfaces with the click of a button to manage individual devices from inside the PCM Client.

Advanced Features – with PCM+

The ProCurve Manager Plus (PCM+) package includes all of the functionality of PCM, along with advanced functionality that can dramatically improve the performance of an IT organization.

Network Traffic Analysis: The Traffic Monitor helps you collect, measure, and analyze data about enterprise network traffic. Traffic Monitor allows you to quickly identify issues, isolate problems, and optimize resource usage.

The Traffic Monitor interface provides detailed information on traffic throughout the network. Leveraging enhanced traffic analysis protocols such as XRMON, you can monitor overall traffic levels, network segments with the highest traffic, or even the top users within a network segment.

VLAN Management: The VLAN Manager in PCM+ provides a single tool to create, track, and manage VLANs on your network. The VLAN management interface lets you create and assign VLANs across the entire network, without having to access each network device individually. The VLAN Manager also provides Wizards for creating VLANs, and modifying VLAN configuration, significantly reducing the likelihood of error in working with VLANs.

Configuration Management: The Configuration Manager in PCM+ automatically tracks and logs configuration changes. You can archive configurations, and then, for example roll back to a known good configuration if any configuration changes cause any problems. Configurations can also be compared over time or between two devices, with differences automatically highlighted for you.

This functionality helps significantly decrease unplanned network downtime and reduce the number of repetitive, configuration tasks that consume hours of your valuable time.

Group and Policy Management: The PCM+ Group and Policy management features allow you to create device groups and set group policies for managing all devices in the group. In addition, you can use the Policy Manager to automatically apply pre-defined configurations across a group of devices.

Device firmware updates: The Firmware Update tool allows you to automatically update devices and obtain new device firmware images from HP. You can also configure scheduled firmware updates across large groups of devices--when it is most convenient for your network.