SECTION II:

NETWORK SETUP

Understand Your Network Environment:

To determine the simplest configuration method for your network environment, you may want to review the *Quick Start Guide* (QS) and the *Application Profiles* in *Section I*, *About ManageUPS* with your network administrator.

The biggest question you may need to answer is whether ManageUPS will need a *fixed* or "static" IP address on your network.

If the preferred policy on your network is to allocate a *fixed* IP to server and management devices, will the fixed IP be "reserved" in a DHCP table and assigned and re-assigned automatically? Or, should a "static" address be configured manually in ManageUPS adapter itself?

The answer will depend on your network policies and procedures and on how you plan to use ManageUPS:

- Will ManageUPS be used across multiple subnets within a multi-tiered network / Enterprise WAN? Or, only within a local subnet or LAN-side of a *Router?*
- Does your network manage network address registration automatically?
- What is your network administrator's policy or procedure for assignment of static IP addresses and entry of server host names in DNS tables?
- Does you network operate a local Network Time (NTP) Server?
- Does your network operate an SMTP server?

Basic Network Parameters

If your network operates a DHCP server and registers IP addresses manually, your network registrar or administrator may need the ***MAC address*** of your adapter. ManageUPS *MAC address* is printed on the carton label and on the faceplate.

- ***MAC address*** of your adapter:

  __:__:__:__:__:__

If your network supports DNS, your administrator may need to add a specific *Host Name* and associated *IP address* to the network DNS server.

- ***Host-Name*** assigned to your ManageUPS (not needed if no DNS)

  _____

If your network uses DHCP and DNS together to automatically assign *Host-Name* and *IP-Address*, you should be able to deploy ManageUPS right out of the box and configure it over the network once the appropriate entries are made in the DHCP and DNS servers.

If your network does not support DHCP, or if your network supports DHCP, but not DNS, you will need to know the *static IP address* that will be assigned to your adapter by the network administrator.

- ***IP Address*** ___. ___ .___.___

If your network does not support DHCP, you will need to know the ***remaining parameters*** to be set along with the IP address.

IP Subnet Mask ___.___.___.___

Default Gateway ___.___.___.___

DNS Servers:

Primary ___.___.___.___

Secondary ___.___.___.___

Other Network Resources you may need to know:

Network Timeserver: (DNS name or IP address) _____

SMTP Server (DNS Name or IP Address) _____

SNMP Trap Receivers _____

Network Shutdown Targets: (DNS Name or IP Address)

Typical Questions:

Q. Is a static IP address necessary?

A. It is generally considered good practice — but may not be absolutely necessary. (See page II-5 for more information)

Q. What happens if there is no DHCP server available?
(or, if there is no dynamic IP address available from the DHCP pool)

A. If ManageUPS is not able to obtain an IP address from a DHCP, it will negotiate an unused IP address from the reserved "link-local" IP range: 169.254.xxx.yyy. (See *DHCP client* on page II-5 for more information) .

Q. Can I turn off the DHCP client? Can I turn off the automatic Link-Local negotiation?

A. Yes. If you set configure a static IP address in ManageUPS itself, the DHCP client and link local negotiation will be disabled.

Q. What is the network timeserver used for?

A. To automatically set the clock reference in ManageUPS . The clock reference is used to mark log entries with a date and time stamp. (See Section III, page 4 for more information on NTP options)

Q. What is the SMTP server for?

A. This is the network resource ManageUPS will use to send status alerts via email. (See page III-5 for more information)

Q. What are network shutdown targets?

A. Computers running MopNSA or RCCMD listener software that will initiate shutdown of their host system. This is initiated by ManageUPS. (See page III-9 for more information.)

SETTING NETWORK PARAMETERS

Serial Configuration?

If you prefer to set network and other parameters using a terminal and RS232/serial connection, see *Appendix A*.

Network Configuration?

If you know the DNS name or fixed IP address that is going to be assigned to your adapter via DHCP, you can reach your adapter using *Telnet* or *WEB Browse*r.

If the IP address has been assigned randomly from the DHCP pool, or during the link-local negotiation, you should use *ManageUPS* DCU software to find ManageUPS on your network and navigate to various configuration menus.

Once you reach ManageUPS using Serial or Network methods, you will need to know the default username / password combination.

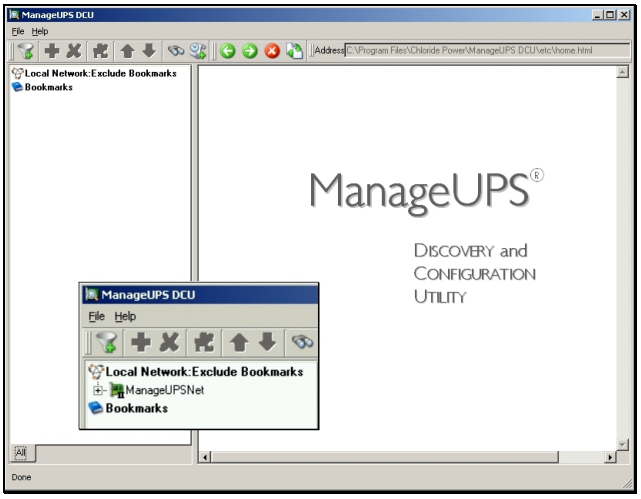
Default username = `admin`. Default password = `admin`.

The three options for configuring Network Settings manually via network connection are described below.

Configuration using ManageUPS DCU

ManageUPS DCU, Discovery and Configuration Utility is a software program that will help simplify initial configuration and ongoing management of ManageUPS adapters.

DCU will guide you through the setting of various network parameters, service settings, security settings and other options. *(Requires a PC running Windows 2000 or above.)*



Installation and use of ManageUPS DCU Discovery and Configuration Utility is covered in the
Quick Start Guide.

Install ManageUPS DCU from *ManageUPS Documentation and Utilities CD*.

If you do not have access to a Windows workstation, or you prefer using a web browser, telnet client or local RS232 terminal, follow the methods outlined on the next page.

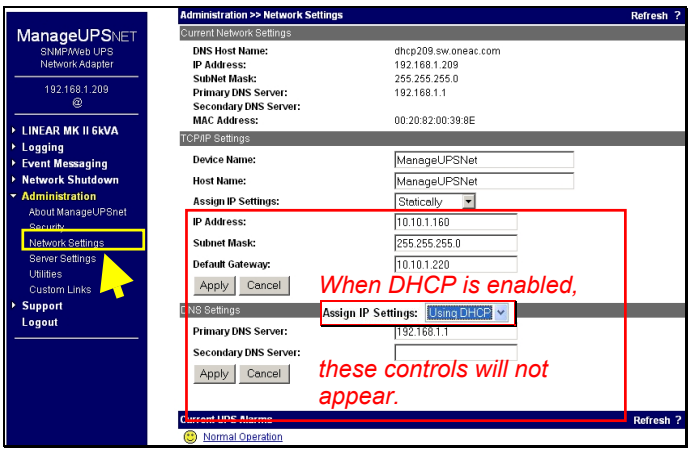
Configuration via WEB BROWSER

Enter the IP address or DNS name assigned to your adapter in the address bar of your web browser. Navigate to the **Network Settings** page in the **Administration** area.

```
http://<ip address>
http://<DNSname>
```

Once you enter new *TCP/IP Settings* in the browser view and press **[Apply]**, you will see a change warning message:

The new IP settings will take affect after you reboot the adapter. The *reboot* control is located on the *Utilities* menu.



After rebooting, you will need to open a new browser session with the adapter using its new IP address. You may want to configure Service, Administrative, or Device settings before rebooting.

Configuration via CONSOLE Menu

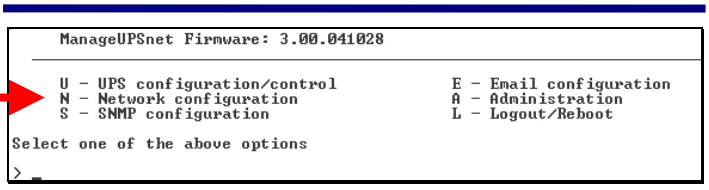
(For Telnet and Serial Configuration methods)

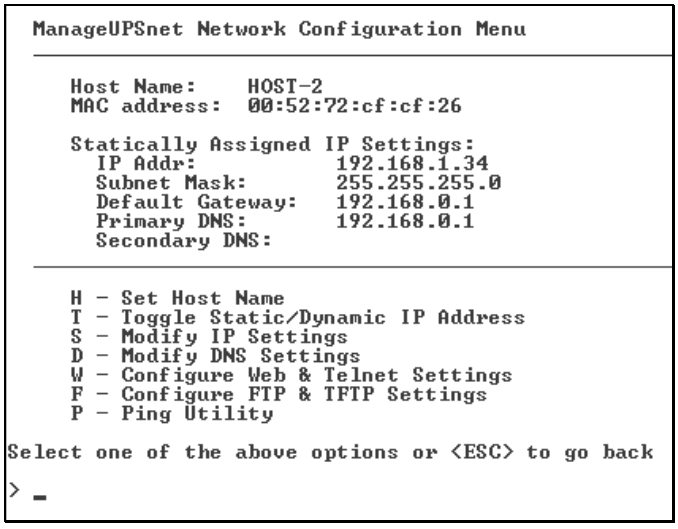
The **CONSOLE** utility is a text menu interface that is available via *Telnet* or via *serial port*.

The lower section of the MAIN menu (right) provides navigation to other menus.

If IP address is set to **STATIC**, active IP settings will appear in the top area of the **Network Configuration Menu**.

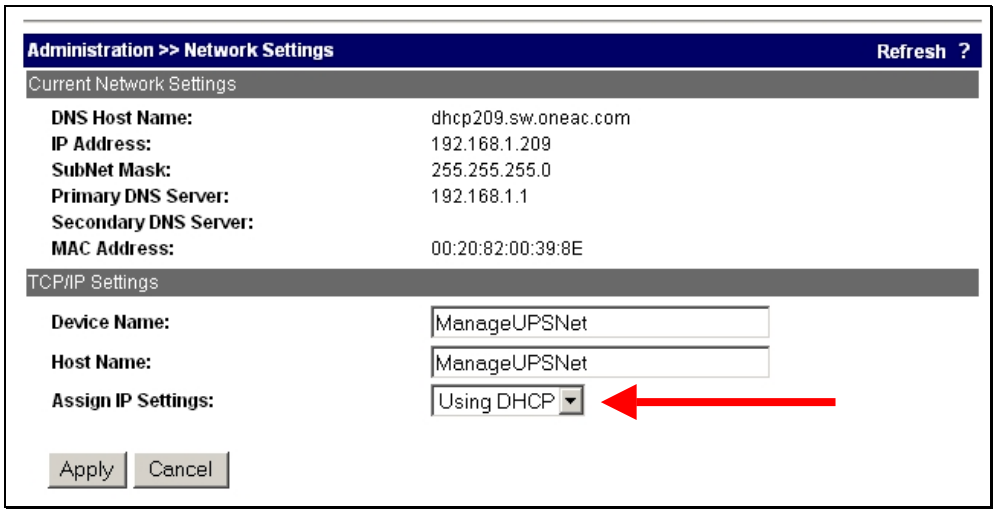
The active network settings of the adapter will remain active until you logout and reboot the adapter.





PING is a diagnostic utility used to verify that the adapter is able to route to specific network addresses of interest. **PING** is only available from the **CONSOLE** utility.

DHCP CLIENT AND NETWORK SETTINGS



DHCP CLIENT

ManageUPS ships with the DHCP client enabled. To disable the DHCP client and configure fixed IP settings, see the topic, *Assign IP Settings* on the next page.

What happens if ManageUPS is unable to obtain settings via DHCP?
If the client is unable to obtain an IP address from a DHCP server, ManageUPS will negotiate an IP address from the range reserved for *Local* networking (169.256.xxx.xxx). If an IP address becomes available later, ManageUPS will release the local address and use the IP address provided by the DHCP server.

STATIC IP ADDRESS

Is a static IP address necessary?
Generally, it is considered good practice to assign a static IP address to server class devices -- but many network policies use dynamic address provisioning and automated network registration to simplify network administration.

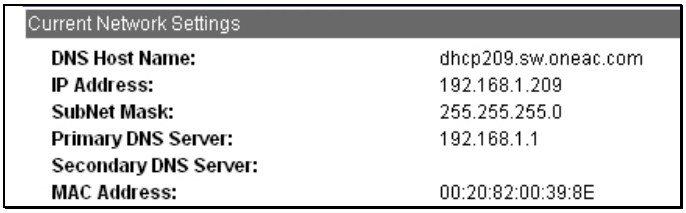
Generous lease periods allow a device that obtains a specific IP from a lease pool to continue to use the same IP unless the DHCP server's MAC table becomes corrupted, or the device is disconnected from the network for a period longer than the lease duration.

If you are using ManageUPS *primarily for email* event messaging, the email message body will contain a link to the active IP address the card is using so you can find it easily via browser.

If you are using ManageUPS as an *SNMP agent* or *UPS status server* for UPS monitoring software, and you feel that that the DNS address resolution is not completely trustable, then you should assign a static IP to ManagUPS.

Current Network Settings

Display the currently active TCP/IP settings of the adapter



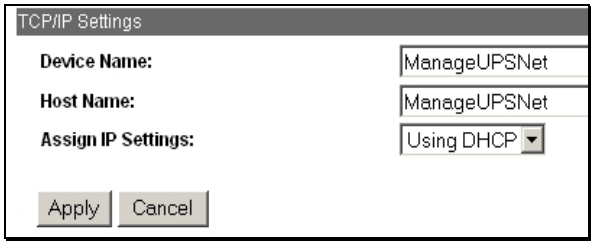
DNS Hostname

The DNS Hostname is retrieved from the DNS server on the network. Is there is no DNS entry for ManageUPS in the DNS server, the current IP address of the adapter will be displayed in the DNS Host Name field.

The MAC address is a unique hardware identifier that is set in the ManageUPS adapter at the factory.

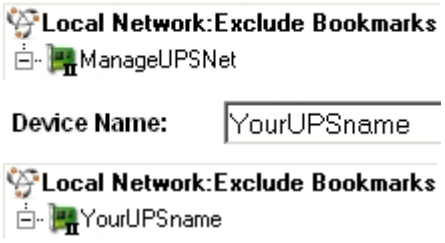
TCP/IP Settings

When the DHCP client is enabled, The only settings you may control manually are Device and Host name.



Device Name

The name the adapter will publish for itself on the network. This name will appear as part of the adapter's icon in ManageUPS DCU navigation window whenever the icon is visible in the Local Network tree. The default value can be edited here and applied.



Host Name

If the DHCP server is configured to push the **DNS Host Name** to DHCP clients, the **DNS Host Name** will be presented here.

If the DHCP session does not include assignment of **DNS Host Name**, the entry will be the default value shown.

Changing the host name entry in ManageUPS TCP/IP settings **will not** affect the entry in the DNS server's directory.

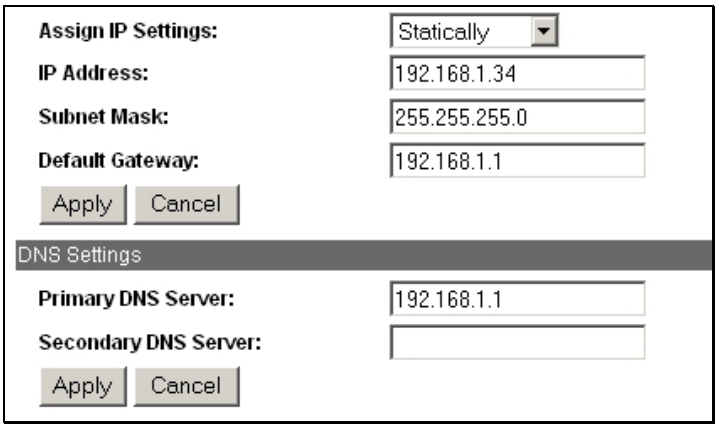
Host Name will be returned as SysName object in the SNMP system MIB (MIB-II)

Assign IP Settings:

DHCP is the default configuration. Static or *fixed* is a configured option.

To switch to a fixed IP, select **Statically** in the dropdown box and press the **Apply** button. This will cause ManageUPS to present controls for entering the fixed IP settings. After you have entered the fixed settings, press **Apply** again. The settings will be saved -- but will not take effect until you reboot the adapter. After the card is rebooted, ManageUPS will deactivate the DHCP client and always use the fixed settings you enter.

TCP/IP Settings
-- MENU ITEMS FOR STATIC IP SETTINGS



IP Address Fixed IP address assigned to this adapter.

SubNet Mask: Subnet Mask of the network that the UPS unit is on.

Default Gateway: The local default gateway (IP address of the router).

:

DNS Settings

Primary DNS Server: IP address of the primary DNS server.

Secondary DNS Server: IP address of the secondary DNS server.