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Welcome

Congratulations on your purchase of the **Uniden evōLO WNP1000 802.11b Wireless Access Point (AP)**. This **WNP1000 Wireless AP** is designed and engineered to exacting standards for reliability, long life and outstanding performance.

With the **WNP1000 Wireless Access Point**, you can connect your 802.11b compliant wireless computers or other clients to establish a wireless network in your home or office.

Features

- Complies with the IEEE 802.11b Direct Sequence Specification
- Complies with IEEE 802.3, IEEE 802.3u for Ethernet connection
- Supports 1, 2, 5.5 and 11 Mbps Data Rate on the wireless interface
- Supports 10/100Mbps, full/half duplex, Auto-negotiation on the Ethernet interface
- Supports up to 32 wireless clients
- WEP 64/128-bit data encryption for security
- Layer 2 Roaming capability
- Remote management via SNMP protocol
- Supports MIB II and IEEE802.11b MIBs
- Remote management via web browser
- Firmware upgrade via HTTP using web-browser interface

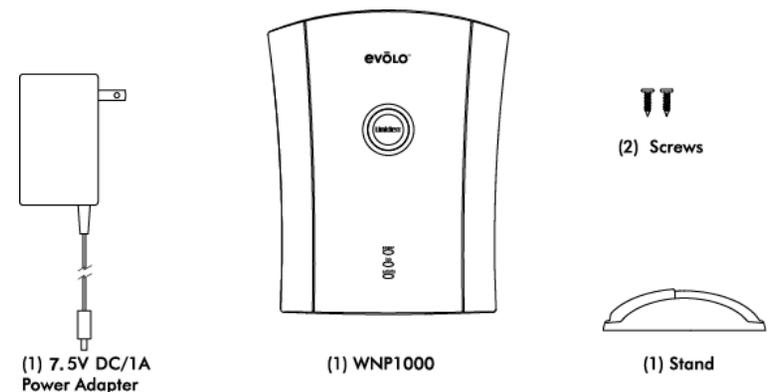
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evōLO® and Your Gateway To The Evolution™ are trademarks of Uniden America Corporation.
Windows® 98/2000, Millennium, and XP are registered trademarks of Microsoft® in the United States and/or other countries.
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Installation

Package Contents

The following items are included in your package:

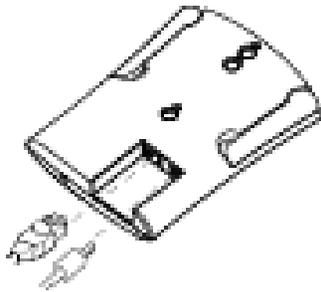
- One **WNP1000** unit with stand
- One 7.5V DC 1A power adapter
- Two screws for wall mounting
- One Easy Start Guide
- CD containing the Owner's Manual



Installing the Hardware

Physical Installation

Select a safe location for the **WNP1000 Wireless AP**. You may install the **WNP1000 Wireless AP** either upright on a desk or bookcase using the included stand, or mount the **WNP1000 Wireless AP** on a wall using the two screws as shown in the figure below. Leave adequate room for the antennas to unfold and allow adequate cable length for both the power and Ethernet cables.

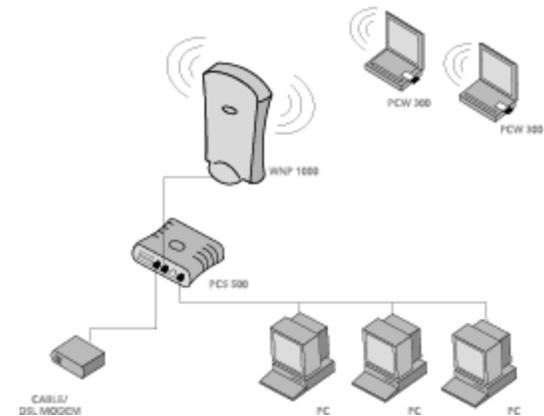


Powering the AP

Plug the power adapter into an AC power outlet and connect the output of the power supply to the power jack on the rear of the **WNP1000 Wireless AP**. The power LED should turn On (Blue) immediately.

Connecting the Device to Computers and Network

When you connect the **WNP1000 Wireless AP** to a switch or router, check the **WNP1000 Wireless AP** LAN LED. Solid green indicates a link to a fast Ethernet Switch (100Mbps). Solid amber indicates a link to a 10Base-T Switch. Flashing indicates activity. A typical configuration is shown in the figure below.



LED Display

The following table summarizes the operation of the LEDs on the **WNP1000 Wireless AP**.

| LED | State | Description |
|----------|-------|---|
| Power | On | When the device is powered, this LED is on. |
| Wireless | On | Indicates one or more wireless clients are connected |
| | Blink | Indicates that wireless data is being transmitted and/or received |
| | OFF | No wireless transmission occurring. |
| Ethernet | On | The LED will light up if the WNP1000 Wireless AP is connected to a hub or computer (speed indicated by color). |
| | Blink | Indicates that data is being transmitted/received |
| | Green | Indicates the LAN port is operating at 100Mbps |
| | Amber | Indicates the LAN port is operating at 10Mbps |

Setting up the Wireless AP

The WNP1000 802.11b Access Point is configured to work with your cable/dsl router, switch or hub and other 802.11b wireless products directly out of the box. There is no need for you to configure your Access Point, unless you want to enable increased security (WEP), change the IP Address, or other configuration options.

If you want to change the default configurations, you will need to access the browser-based utility of the **WNP1000 Wireless AP**, you need a computer with the TCP/IP protocol enabled and web browser software (Microsoft's Internet Explorer, Netscape, etc.).

In order for your computer to communicate with the WNP1000, both (your computer and the AP) will need to be on the same Local Area Network, i.e. they must have similar IP Addresses. The default IP address of the **WNP1000 Wireless AP** is <http://192.168.1.10>. As a result, your PC's IP Address should be on the same network (i.e., at a LAN IP Address such as 192.168.1.2, 192.168.1.3, etc.)

Note: If you are having trouble communicating with your Access Point, please see "Troubleshooting" on page 37.

You can connect to the browser based configuration screens from any of the following three options:

- a) Wirelessly connect through a wireless 802.11b client in your PC or Laptop. (Uniden's PCW300, PCW200 or PCW100 802.11b clients.)
- b) Connect both the **WNP1000 Wireless AP** and the computer to a hub using "straight-through" Ethernet cables.

- c) Connect the computer directly to the **WNP1000 Wireless AP** using a “crossover” Ethernet cable.

If you wish to setup the **WNP1000 Wireless AP** by using an 802.11b enabled PC, make sure the 802.11b client is in “Infrastructure” mode, and has an SSID of “UNIDEN” or blank.

The default IP address of the **WNP1000 Wireless AP** LAN interface is 192.168.1.10 and the default network mask 255.255.255.0.

The Configuration Interface

The **WNP1000 Wireless AP** incorporates a browser-based management/configuration interface. The following sections guide you through configuring your **WNP1000 Wireless AP** and detailing the information found within each section.

Logging In

Open a web browser on your computer configured for TCP/IP networking. Make sure that the computer and the **WNP1000 Wireless AP** are on the same local area network, with similar IP addresses. (If you are having trouble communicating with your Access Point, please see “Troubleshooting” on page 37.)

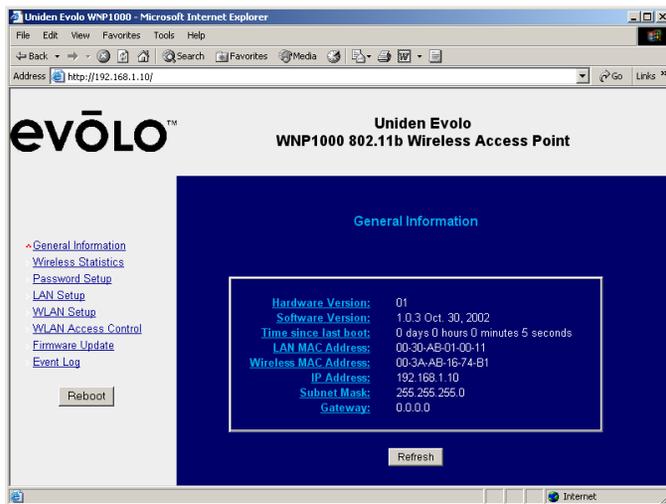
1. Type “**http://192.168.1.10/**” into the **Location field** (or the URL field) at the top of the browser window and hit the **Enter** key. This is the same location were you type in the web address such as <http://www.uniden.com>. (**192.168.1.10** is the default IP address of the **WNP1000 Wireless AP**.) Once you hit the **Enter** key, the “**Enter Network Password**” window will appear.



2. Type “**admin**” (lower case) in the **User Name** field, leave the **Password** field blank, and click **OK**. The **General Information** web page will appear next.
3. After you are logged into the Access Point you can change the User Name and Password.

General Information

You are now logged into the Configuration tool for the **WNP1000 Wireless AP**. To navigate the tool, click on any items located on the left side of the page.



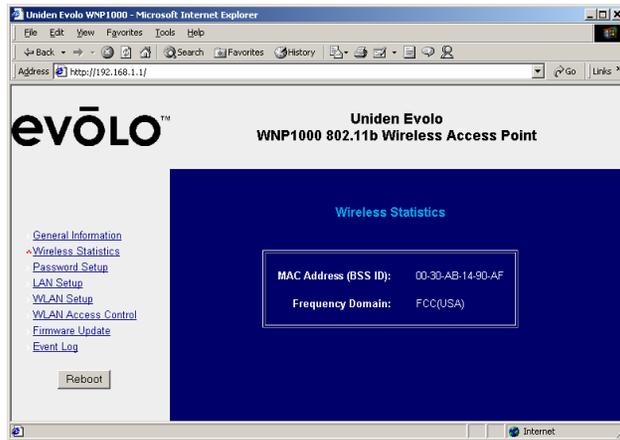
The fields on the “**General Information**” page are described below. To see the current status, click the **Refresh** button.

- **Hardware Version:** Displays the hardware version of your **WNP1000 Wireless AP**.
- **Software Version:** Displays the version of the software installed on the **WNP1000 Wireless AP**. This changes whenever you install a software upgrade.
- **Time since last boot:** Displays the time that has elapsed since the **WNP1000 Wireless AP** was last started.

- **LAN MAC Address:** Displays the Ethernet MAC address of the LAN (Ethernet) interface of the **WNP1000 Wireless AP**. A MAC address consists of six 2-digit number pairs that uniquely identify an Ethernet device.
- **Wireless MAC Address:** Displays the MAC address of the wireless interface of the **WNP1000 Wireless AP**.
- **IP Address:** Displays the IP address of the local LAN interface of the **WNP1000 Wireless AP**. The default IP address is **192.168.1.10**.
- **Subnet Mask:** Displays the local subnet mask of the LAN interface of the **WNP1000 Wireless AP**. The default subnet mask is **255.255.255.0**.

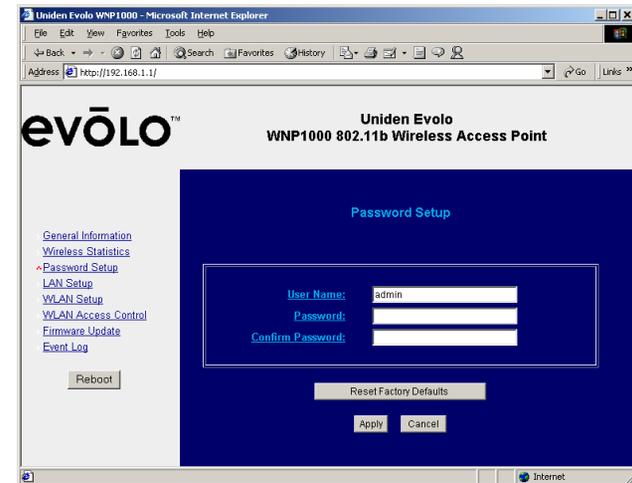
Wireless Statistics

This page shows the Wireless LAN **MAC Address** of the **WNP1000 Wireless AP**, as illustrated in the figure below.



Password Setup

The “**Password Setup**” page is for changing the security settings of the **WNP1000 Wireless AP**. If you wish to change the **User Name** or **Password**, fill in the appropriate fields and click the **Apply** button. Please note that the **Password** and **Confirm Password** fields must contain the same value.

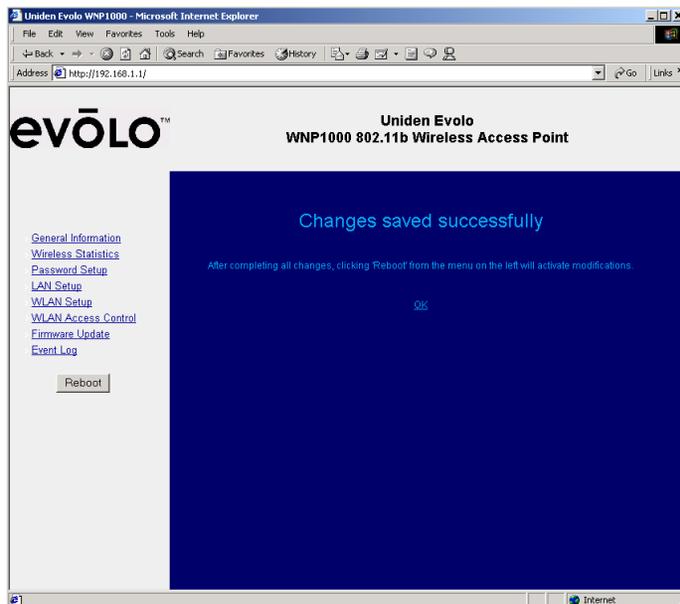


Also on this page, you can reset the unit to factory defaults. Please be aware that the default LAN IP Address is **192.168.1.10**, and the default **User Name** is “**admin**” (with a blank password).

Saving the Configuration

The configuration changes that you make are automatically saved into the flash memory of the **WNP1000 Wireless AP** within a few seconds after you click the **Apply** button. However, the **WNP1000 Wireless AP** will continue to use the previous configuration values until you restart the **WNP1000 Wireless AP** by clicking the **Reboot** button on the left manual page.

Each time you make a change, the **WNP100 Wireless AP** will remind you by displaying a page such as the one shown below:

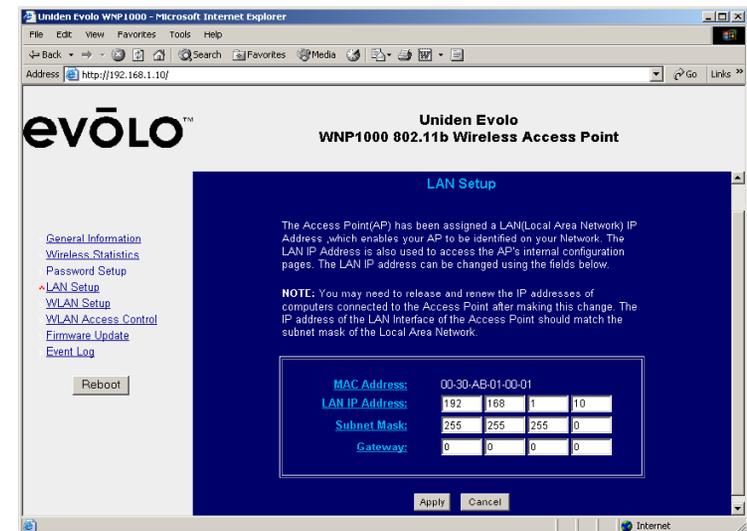


Access Point Configuration

Through the following procedure, you can enable the wireless operation of the **WNP1000 Wireless AP** to allow communication between wireless clients and devices on your wired network such as a DSL/Cable modem, printers, file servers, and e-mail servers.

LAN Setup

Click **LAN Setup** on the left menu. The following page will appear.



MAC Address:

Displays the Ethernet MAC address of the LAN (Ethernet) interface of the **WNP1000 Wireless AP**. You may not change the MAC address of your **WNP1000 Wireless AP**.

Change the following fields as desired, and then click **Apply**. Please remember that changes will not take effect until after the **WNP1000 Wireless AP** is restarted.

LAN IP Address:

In this field, you enter the IP Address of the **WNP1000 Wireless AP's** LAN port. If you change this address from the factory default of **192.168.1.10**, please remember the new address, as you will need to use it to access the **WNP1000 Wireless AP** for configuration in the future. However, if you forget the IP Address you can press the **Reset** button located on the bottom of the **WNP1000 Wireless AP**. Push and holding the **Reset Button** for three seconds restores all settings to the factory default settings.

Subnet Mask:

In this field, you enter the Subnet Mask of the local network to which the **WNP1000 Wireless AP** is attached. The default Subnet Mask is 255.255.255.0.

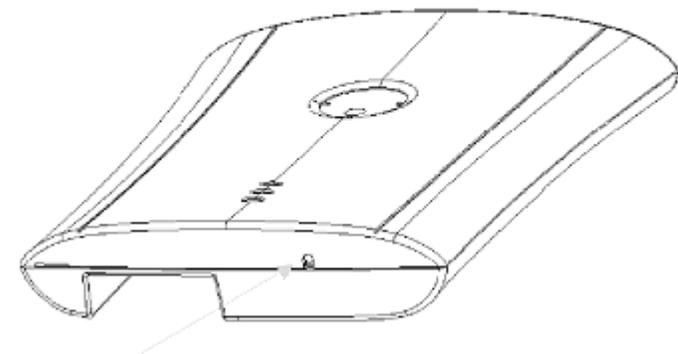
Reset Button

If you change the IP address of the **WNP1000 Wireless AP** and forget the IP address, you can reset the access point back to the factory default settings, **192.168.1.10**.

Press and hold the Reset Button for three seconds with the end of a paper clip, while the access point is **ON**. The access point will then restore the unit to the original factory settings. The Reset Button is located on the bottom of the **WNP1000 Wireless AP**.

Note: All settings you entered for the SSID, WEP, User Name and Password will be erased and you will need to re-configure the unit to your settings.

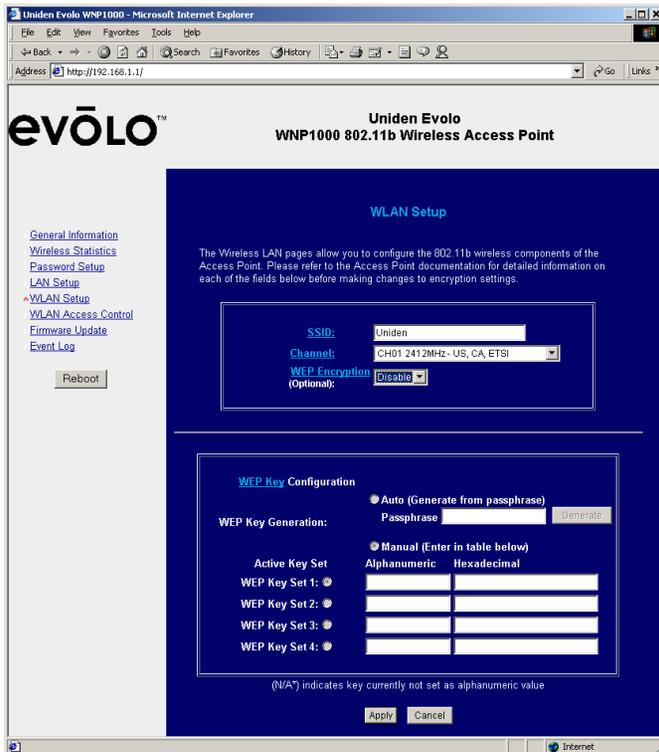
Pressing the Reset Button once will is a soft boot and will refresh the Access Points connections.



Reset Button

WLAN Setup

You are now ready to begin setting up the wireless portion of your network. Click **WLAN Setup** on the menu, and the following page will appear.



Set each of the parameters on this page as desired, and click **Apply**. The parameters are described in more detail below

SSID:

The Service Set Identifier (SSID) is a 32-character, case-sensitive field that identifies your **WNP1000 Wireless AP** and wireless network to wireless clients that support the IEEE802.11b wireless standard. You should use a unique SSID to control access to your private network, and to prevent conflicts with other wireless networks that may be nearby. The **WNP1000 Wireless AP** is configured with a default SSID of **UNIDEN**.

Note: All clients on the same wireless LAN must have the same SSID. If you change the SSID on the **WNP1000 Wireless AP**, you must change the SSID for each computer and/or device you are wanting to connect using the 802.11b wireless network.

Channel:

Channels are the spectrum range where your wireless signals are transmitted. The default is **channel 1**. However, to maximize performance for your wireless network, another channel may give you better performance. Select the channel you wish to use from the pull-down menu.

Note: For better performance, avoid using channels occupied by other AP's in the area.

WEP Encryption

To make your network more secure, you may choose to use Wired Equivalent Privacy (WEP). WEP is an encryption scheme used to protect your wireless data communications. WEP uses a combination of 64-bit or 128-bit keys to provide access control to your network and encryption security for every data transmission. The **WNP1000 Wireless AP** supports both 64-bit WEP and 128-bit WEP. To decode a data transmission, each point in a network must use an identical 64-bit or 128-bit key. In simple terms, a 128-bit key will give you a more secure network than a 64-bit key.

Note: Some products refer to 64-bit encryption as 40-bit encryption. Both are names for the same encryption technology.

802.11b clients inserted into your laptop or desktop computer must have the same WEP settings as the AP in order for them to communicate with each other.

WEP Key Configuration

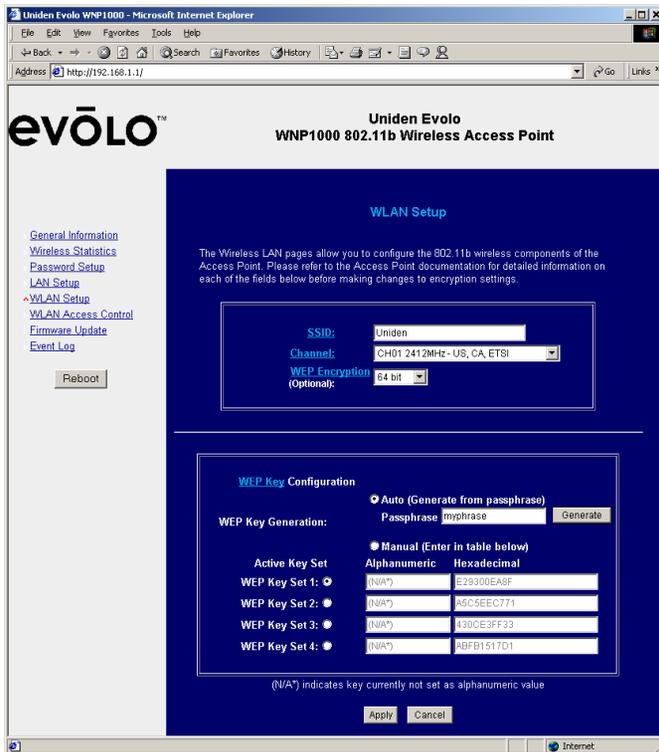
WEP keys either can be entered manually, or can be generated by using a simple-to-type passphrase.

Passphrase Method

When you enter a passphrase, the **WNP1000 Wireless AP** generates four WEP keys for you. You can generate those same WEP keys on any wireless client whose configuration utility supports passphrases. To setup WEP using a passphrase, perform the following steps.

1. Select either **64-bit** or **128-bit** WEP encryption from the pull-down menu.
2. Click on **Auto (Generated from passphrase)**.
3. Type a passphrase of up to 31 alphanumeric characters into the **Passphrase** field and click **Generate** to create the hex key(s).
4. Select the active WEP key set (1, 2, 3, or 4) for 64-bit encryption. WEP 128-bit encryption creates only one key. Verify that you are using the same active key for all clients on your wireless network. (If a client does not support passphrases, you may manually enter the desired key on that client.)
5. Click **Apply**. Remember that changes do not take effect until after you restart your **WNP1000 Wireless AP** by clicking the **Reboot** button.

A sample WEP configuration using a passphrase is shown in the following figure.

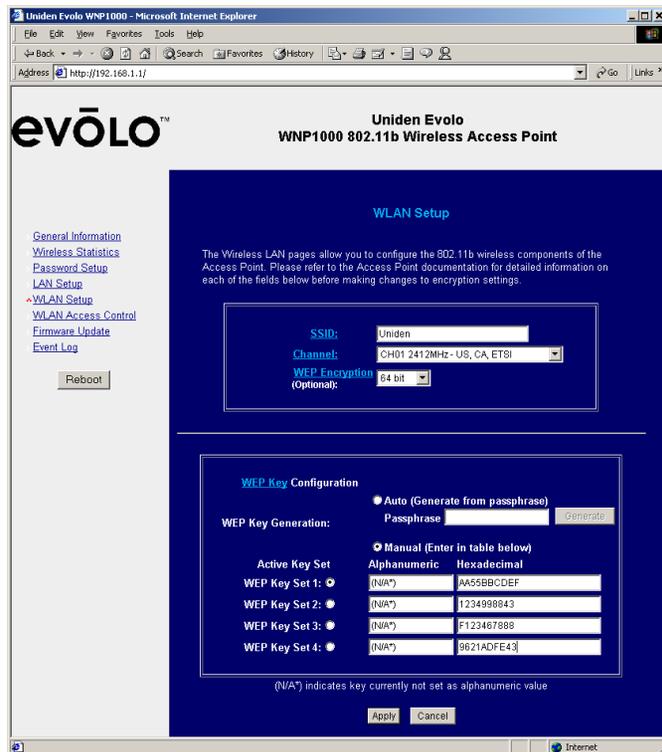


Manual Key Entry

To manually enter the WEP keys, perform the following steps:

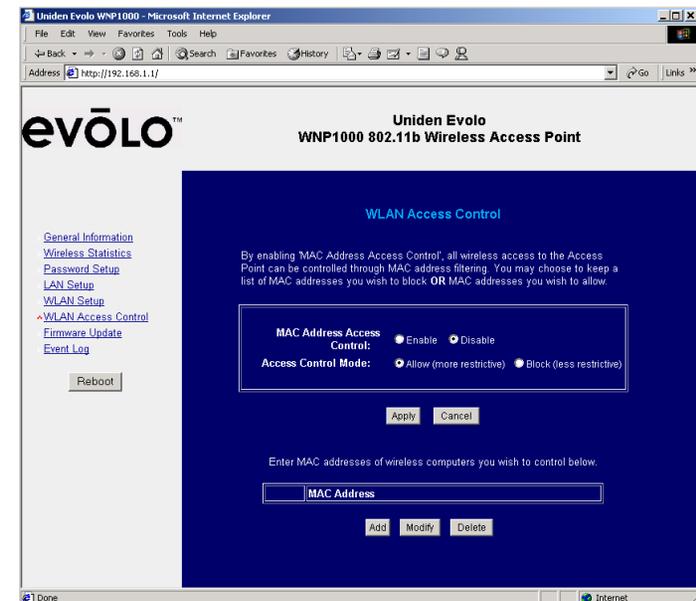
1. Select either **64-bit** or **128-bit** WEP encryption from the pull-down menu.
2. Click on **Manual (Enter in the table below)**.
3. When WEP 64-bit is selected, type five alphanumeric characters in the range of "a-z", "A-Z" and "0-9" (e.g. MyKey) in the WEP Key 1 entry field. Alternatively, you may enter 10 digit hexadecimal values in the range of "A-F" and "0-9" (as shown in the example below). You can also enter WEP keys in the Key 2, Key 3 and Key 4 if you wish. Select the active WEP key set (1, 2, 3, or 4) for 64-bit encryption. WEP 128-bit encryption uses only one key. Verify that you are using the same active key for all clients on your wireless network.
4. Click **Apply**. Remember that changes do not take effect until after you restart your **WNP1000 Wireless AP** by clicking the **Reboot** button.

A sample WEP configuration using manual key entry is shown in the following figure.



WLAN Access Control

When you click **WLAN Access Control** the following page will appear.



MAC Address Access Control

In 802.11b, the **MAC Address** may be used as a means to control network access. If you choose **Disable MAC Address Access Control**, all clients within range of your Access Point can access your **WNP1000 Wireless AP** and its associated network if you don't use other means of protection (such as WEP).

To enable **MAC Address Access Control**, click on **Enable** and then click **Apply**. Click on **Allow** (beside **Access Control Mode**). Next, enter a list of MAC addresses of clients that you wish to allow on your network. To do so, click **Add** and type in the **MAC Address** of each client in the pop-up page as shown in the following figure.



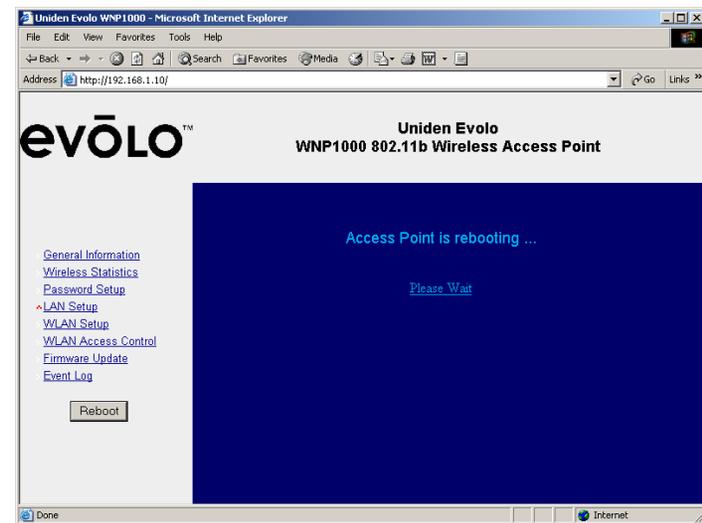
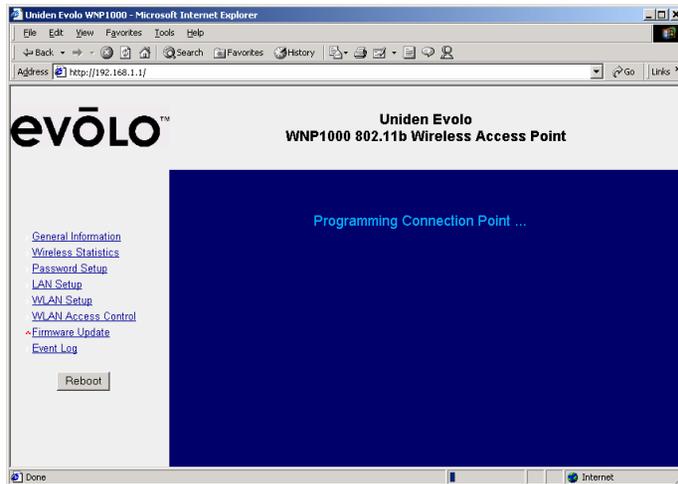
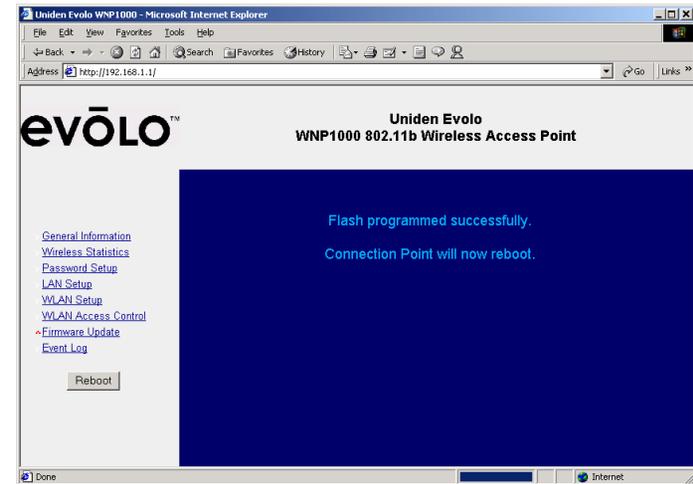
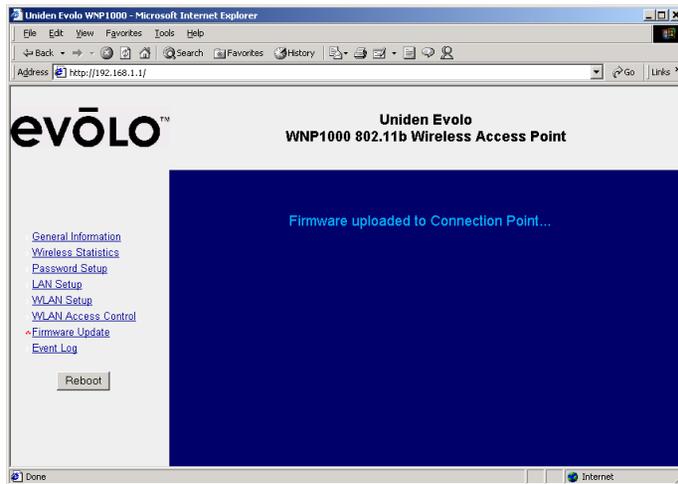
Uniden's client **MAC Address** can be found listed on the product label. For 802.11b clients, you can find the **MAC Address** listed on the package of the client network interface card. It consists of 6 pairs of characters, such as 00:30:AB:00:00:01.

After you have finished entering all MAC addresses, click **Apply** to save your settings.

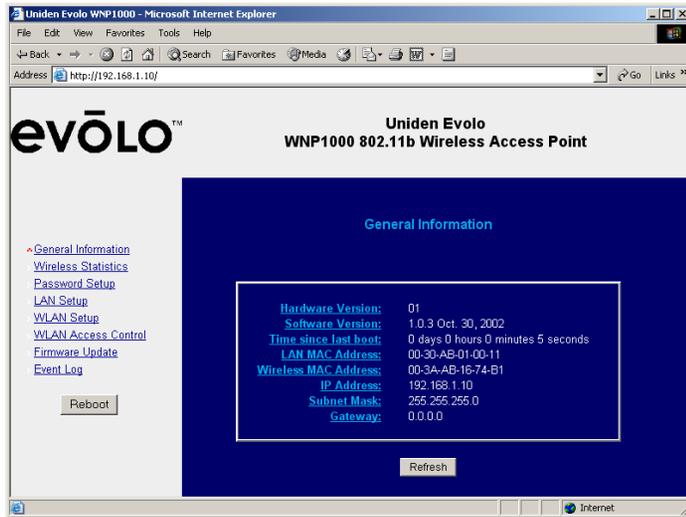
You may also delete or modify MAC addresses in the list by clicking on the button by the address, and then clicking **Delete** or **Modify** on the WLAN Access Control page



You may also choose to reverse the meaning of the **MAC Address** list by clicking **Block** next to **Access Control Mode**. Doing so will cause the **WNP1000 Wireless AP** to permit all clients EXCEPT those whose MAC addresses are on the list to have access to your network.



The “**General Information**” page will then be displayed.



Once this page is displayed, click the **Reboot** button. The following pop-up will appear.



Click **OK** and wait for the **WNP1000 Wireless AP** to reboot and display the “**General Information**” page again. The upgrade process is complete.

Please remember that configuration changes that you make through the user interface (including firmware upgrades) are automatically saved into the flash memory of the **WNP1000 Wireless AP**. However, changes will not take effect until after you restart the **WNP1000 Wireless AP** by clicking the **Reboot** button.

Troubleshooting

If you experience difficulty in transferring data between computers, you may try the following steps:

- Ensure that the access point and all client computers are using the same wireless channel.
- Ensure that the encryption settings are the same for all computers.
- Re-position the **WNP1000 Wireless AP** and/or the computer.
- Adjust the orientation of the antennas on the access point.
- Keep in mind that closer is not necessarily better for devices of this type. If the devices are very close together, move them apart
- If you have a consistent problem with many or all wireless devices on your network, you should consider using a different wireless channel for your network operations.
- If you are not able to communicate with your Access Point, the computer and the Access Point are not on the same local area network, The following provides you with instructions on how to change the IP Address for your computer, so you can access your 802.11b Access Point Configuration Utility.

Changing The IP Address

For Windows 95, 98, and ME:

1. Click on **Start, Settings, Control Panel**. Double click on **Network**.
2. In “**The following network components are installed**” box, select the TCP/IP associated with your network adapter. If you only have one network adapter installed, you will only see one TCP/IP mentioned with no association to a network adapter. Highlight it and click the **Properties** button.
3. In the “TCP/IP Properties” window, select the “IP Address” tab.

Note: **PLEASE WRITE DOWN THE IP ADDRESS or THE BOX FOR “OBTAIN AN IP ADDRESS AUTOMATICALLY” WAS CHECKED ON THE “MEMO” PAGE OF THIS MANUAL, PAGE 57.** After you’ve configured the Access Point, you will need to re-enter either the IP Address or check the box for “Obtain an IP Address Automatically” into your computer. Follow these same steps, but enter the information YOU wrote down on the “Memo” page of this manual, page 57.

4. Select “**Specify an IP address**”. Enter a unique IP address that is not used by any other computer connected to the network. You can only use an IP address in the range of 192.168.1.1 to 192.168.1.254. Make sure that each IP address is unique for each PC or network device.
5. Enter the Subnet Mask, **255.255.255.0**.
6. Click the **OK** button in the “TCP/IP Properties” window, and click **OK** in the “Network” window.
7. Restart the computer if asked.

For Windows 2000:

1. Click on **Start, Settings, Control Panel**. Double click on **Network and Dial-up Connections**.
2. Right click on the Local Area Connection that is associated with the network adapter you are using, and select the **Properties** option.
3. In the **“Components checked are used by this connection”** box, highlight **Internet Protocol (TCP/IP)**, and click the **Properties** button.

Note: **PLEASE WRITE DOWN THE IP ADDRESS or THE BOX FOR “OBTAIN AN IP ADDRESS AUTOMATICALLY” WAS CHECKED ON THE “MEMO” PAGE OF THIS MANUAL, PAGE 57.** After you’ve configured the Access Point, you will need to re-enter either the IP Address or check the box for “Obtain an IP Address Automatically” into your computer. Follow these same steps, but enter the information YOU wrote down on the “Memo” page of this manual, page 57.

4. Select **Use the following IP address** option. Enter a unique IP address that is not used by any other computer connected to the network. You can only use an IP address in the range of 192.168.1.1 to 192.168.1.254. Make sure that each IP address is unique for each PC or network device.
5. Enter the Subnet Mask, **255.255.255.0**.
6. Click the **OK** button in the **“Internet Protocol (TCP/IP) Properties”** window, and click the **OK** button in the **“Local Area Connection Properties”** window.
7. Restart the computer if asked.

For Windows NT 4.0:

1. Click on **Start, Settings, Control Panel**. Double click on **Network**.
2. Select the **Protocol** tab, and double click on **TCP/IP Protocol**.
3. When the window appears, make sure you have selected the correct Adapter for your network adapter.

Note: **PLEASE WRITE DOWN THE IP ADDRESS or THE BOX FOR “OBTAIN AN IP ADDRESS AUTOMATICALLY” WAS CHECKED ON THE “MEMO” PAGE OF THIS MANUAL, PAGE 57.** After you’ve configured the Access Point, you will need to re-enter either the IP Address or check the box for “Obtain an IP Address Automatically” into your computer. Follow these same steps, but enter the information YOU wrote down on the “Memo” page of this manual, page 57.

4. Select **“Specify an IP address”**, and enter a unique IP address that is not used by any other computer connected to the network. You can only use an IP address in the range of 192.168.1.1 to 192.168.1.254. Make sure that each IP address is unique for each PC or network device.
5. Enter the Subnet Mask, **255.255.255.0**.
6. Click the **OK** button in the **“TCP/IP Properties”** window, and click **OK** in the **“Network”** window.
7. Restart the computer if asked.

For Windows XP:

1. Click on **Start, Control Panel**. If your view is already Classic View, proceed to step 2. Otherwise, switch your view to **Classic View**, located at the top left of the window.
2. Double click on **Network Connections**.
3. Right click on the Local Area Connection that is associated with the network adapter you are using, and select the **Properties** option.
4. In the **“This connection uses the following items”** box, highlight **Internet Protocol (TCP/IP)**. Click the **Properties** button.

Note: **PLEASE WRITE DOWN THE IP ADDRESS or THE BOX FOR “OBTAIN AN IP ADDRESS AUTOMATICALLY” WAS CHECKED ON THE “MEMO” PAGE OF THIS MANUAL, PAGE 57.** After you’ve configured the Access Point, you will need to re-enter either the IP Address or check the box for “Obtain an IP Address Automatically” into your computer. Follow these same steps, but enter the information YOU wrote down on the “Memo” page of this manual, page 57.

5. Enter a unique IP address that is not used by any other computer connected to the network. You can only use an IP address in the range of 192.168.1.2 to 192.168.1.254. Make sure that each IP address is unique for each PC or network device.
6. Enter the Subnet Mask, **255.255.255.0**.
7. Click the **OK** button in the **“Internet Protocol (TCP/IP) Properties”** window. Click the **OK** button in the **“Local Area Connection Properties”** window.
8. Restart your computer if asked.

Specifications

| | |
|---------------------------|---|
| Model Number | WNP1000 |
| Wireless Network Standard | IEEE 802.11b |
| LAN Network Standard | IEEE 802.3 IEEE 802.3u |
| LAN Port | RJ-45 connector |
| LED Indicators | Power, LAN Link/Activity, Wireless Status |
| Power | External, 7.5V DC, 1A |
| Operating Environment | Operating Temperature: 0°C ~ 55°C Storage Temperature: -20°C ~ 70°C Humidity (non-condensing): 10% ~ 90% RH |
| Frequency Band | 2.412GHz ~ 2.462GHz (North America) |
| Operating Channels | 11 channels for US and Canada |
| Radio Data Rates | 11/5.5/2/1 Mbps |
| Wireless Medium | Direct Sequence Spread Sequence (DSSS) |
| Modulation Techniques | DBPSK @ 1 Mbps DQPSK @ 2 Mbps CCK @ 5.5 and 11 Mbps |
| Encryption | 40/64-bit and 128-bit Wired Equivalent Privacy (WEP) |
| Certification | FCC Part 15 |

Legal Notice

Statement of Conditions

Uniden reserves the right to make changes to the products described in this document without notice.

Uniden does not assume any liability due to the user or application of the product(s) or circuit layout(s) described herein.

IC Notice:

This Class B digital apparatus complies with Canadian ICES-003.

FCC Information

Federal Communications Commission (FCC) Compliance Notice: Radio Frequency Notice

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference

will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: (1) Reorient or relocate the receiving antenna, (2) Increase the separation between the equipment and receiver, (3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected, (4) Consult the dealer or an experienced radio/TV technician for help.

Federal Communications Commission (FCC) Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 inches) during normal operation.

The FCC Wants You To Know

Changes or modifications to this product not expressly approved by Uniden, or operation of this product in any way other than as detailed by the owner's manual, could void your authority to operate this product and will void any warranty.

Precautions!

Before you read anything else, please observe the following:

Warning!

Uniden America Corporation DOES NOT represent this unit to be waterproof. To reduce the risk of fire, electrical shock, or damage to the unit, DO NOT expose this unit to rain or moisture.

Important Safety Instruction

When using your product, these basic safety precautions should always be followed to reduce the risk of fire, electrical shock, and injury to persons:

1. Read and understand all instructions.
2. Follow all warnings and instructions marked on the product.
3. Do not use this product near water; for example, near a bathtub, washbowl, kitchen sink or laundry tub, in a wet basement, or near a swimming pool.
4. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the unit.
5. Slots and openings in the cabinet and the back or bottom are provided for ventilation. To protect the product from overheating, these openings must not be blocked or covered. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.
6. If this product includes a cable, do not allow anything to rest on it and do not locate this product where the cable will be damaged by persons walking on it.
7. Do not overload wall outlets and extension cords, as this can result in the risk of fire or electrical shock.
8. Never push objects of any kind into this product through cabinet slots, as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.
9. To reduce the risk of electric shock, do not disassemble this product. Take it to qualified service personnel when service or repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock when the appliance is subsequently used.
10. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - A. If liquid has been spilled into the product.
 - B. If the product has been exposed to rain or water.
 - C. If the product does not operate normally when following the operating instructions. (Adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive repair work by a qualified technician.)
 - D. If the product has been dropped or the cabinet has been damaged.
 - E. If the product exhibits a distinct change in performance.

Important Electrical Considerations

Unplug all electrical appliances when you know an electrical storm is approaching. Lightning can pass through your household wiring and damage any device connected to it. This product is no exception.

Warning!

Please do not attempt to unplug any appliance during an electrical storm.

One Year Limited Warranty

Important: Evidence of original purchase is required for warranty service.

WARRANTOR: UNIDEN AMERICA CORPORATION (“Uniden”)

ELEMENTS OF WARRANTY: Uniden warrants, for one year, to the original retail owner, this Uniden Product to be free from defects in materials and craftsmanship with only the limitations or exclusions set out below.

WARRANTY DURATION: This warranty to the original user shall terminate and be of no further effect twelve (12) months after the date of original retail sale. The warranty is invalid if the Product is (A) damaged or not maintained as reasonable or necessary, (B) modified, altered, or used as part of any conversion kits, subassemblies, or any configurations not sold by Uniden, (C) improperly installed, (D) serviced or repaired by someone other than an authorized Uniden service center for a defect or malfunction covered by this warranty, (E) used in any conjunction with equipment or parts or as part of any system not manufactured by Uniden, or (F) installed or programmed by anyone other than as detailed by the owner’s manual for this product.

STATEMENT OF REMEDY: In the event that the product does not conform to this warranty at any time while this warranty is in effect, warrantor will either, at its option, repair or replace the defective unit and return it to you without charge for parts, service, or any other cost (except shipping and handling) incurred by warrantor or its representatives in connection with the performance of this warranty. Warrantor, at its option, may replace the unit with a new or refurbished unit. THE LIMITED WARRANTY SET FORTH ABOVE IS THE SOLE AND ENTIRE WARRANTY PERTAINING TO THE PRODUCT AND IS IN

LIEU OF AND EXCLUDES ALL OTHER WARRANTIES OF ANY NATURE WHATSOEVER, WHETHER EXPRESS, IMPLIED OR ARISING BY OPERATION OF LAW, INCLUDING, BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS WARRANTY DOES NOT COVER OR PROVIDE FOR THE REIMBURSEMENT OR PAYMENT OF INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow this exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you.

LEGAL REMEDIES: This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. This warranty is void outside the United States of America.

PROCEDURE FOR OBTAINING PERFORMANCE OF WARRANTY: If, after following the instructions in the owner's manual you are certain that the Product is defective, pack the Product carefully (preferably in its original packaging). The Product should include all parts and accessories originally packaged with the Product. Include evidence of original purchase and a note describing the defect that has caused you to return it. The Product should be shipped freight prepaid, by traceable means, to warrantor at:

Uniden America Corporation
Parts and Service Division
4700 Amon Carter Blvd
Fort Worth, TX 76155
(800) 775-9060

Glossary

Ad.Hoc - Ad.Hoc mode allows computers equipped with wireless transmitters and receivers to communicate directly with each other, eliminating the need for an access point.

Adapter - A printed circuit board that plugs into a PC to add to capabilities or connectivity to a PC. In a networked environment, a network interface card (NIC) is the typical adapter that allows the PC or server to connect to the intranet and/or Internet.

Backbone - The part of a network that connects most of the systems and networks together and handles the most data.

Bandwidth - The transmission capacity of a given facility, in terms of how much data the facility can transmit in a fixed amount of time; expressed in bits per second (bps).

Bit - A binary digit. The value 0 or 1 used in the binary numbering system. Also, the smallest form of data.

Boot - To cause the computer to start executing instructions. Personal computers contain built-in instructions in ROM chip that are automatically executed on startup. These instructions search for the operating system, load it, and pass control to it.

Bridge - A device that interconnects different networks together.

Broadband - A data-transmission scheme in which multiple signals share the bandwidth of a single medium. This allows the transmission of voice, data, and video signals over that medium. Cable television uses broadband techniques to deliver dozens of channels over one cable.

Browser - An application program that provides a way to look at and interact with all the information on the World Wide Web or PC. The word "browser" seems to have originated prior to the Web as a generic term for user interfaces that let you browse text files online.

Cable Modem – A device that connects a computer to the cable television network, which in turn connects to the Internet. Once connected, cable modem users have a continuous connection to the Internet. Cable modems feature asymmetric transfer rates: around 36 Mbps downstream (from the Internet to the computer), and from 200 Kbps to 2 Mbps upstream (from the computer to the Internet).

Data Packet - One frame in a packet-switched message. Most data communication is based on dividing the transmitted message into packets. For example, an Ethernet packet can be from 64 to 1518 bytes in length.

Default Gateway - The routing device used to forward all traffic that is not addressed to a station within the local subnet.

DHCP (Dynamic Host Configuration Protocol) - A protocol that lets network administrators centrally manage and automate the assignment of Internet Protocol (IP) addresses in an organization's network. Using the Internet's set of protocol (TCP/IP), each machine that can connect to the Internet needs a unique IP address. When an organization sets up its computer users with a connection to the Internet, an IP address must be assigned to each machine. Without DHCP, the IP address must be entered manually at each computer and, if computers move to another location in another part of the network, a new IP address must be entered. DHCP lets a network administrator supervise and distribute IP addresses from a central point and automatically sends a new IP address when a computer is plugged into a different place in the network. DHCP uses the concept of a "lease" or amount of time that a given IP address will be valid for a computer. The lease time can vary depending on how long a user is likely to require the Internet connection at a particular location. It's especially useful in education and other environments where users change frequently. Using very short leases, DHCP can dynamically reconfigure networks in which there are more computers than there are available IP addresses. DHCP supports static addresses for computers containing Web servers that need a permanent IP address.

DNS - The Domain Name System (DNS) is the way that Internet domain names are located and translated into an Internet Protocol (IP) address. A domain name is a meaningful and easy-to-remember "handle" for an Internet address.

Domain - A sub network comprised of a group of clients and servers under the control of one security database. Dividing LANs into domains improves performance and security.

Download - To receive a file transmitted over a network. In a communications session, download means receive, and upload means transmit.

Driver - A software module that provides an interface between a network interface card and the upper-layer protocol software running in the computer; it is designed for a specific adapter, and is installed during the setup of the adapter.

DSSS (Direct-Sequence Spread-Spectrum) - DSSS generates a redundant bit pattern for each bit transmitted. This bit pattern is called a chip (or chipping code). The longer the chip, the greater the probability that the original data can be recovered. Even if one or more bits in the chip are damaged during transmission, statistical techniques embedded in the radio can recover the original data without the need for retransmission. To an unintended receiver, DSSS appears as low power wideband noise and is rejected (ignored) by most narrowband receivers.

Dynamic IP Address - An IP address that is automatically assigned to a client station in a TCP/IP network, typically by a DHCP server. Network devices that serve multiple users, such as servers and printers, are usually assigned static IP addresses.

Dynamic Routing - The ability for a router to forward data via a different route based on the current conditions of the communications circuits. For example, it can adjust for overloaded traffic or failing lines and is much more flexible than static routing, which uses a fixed forwarding path.

Ethernet - IEEE standard network protocol that specifies how data is placed on and retrieved from a common transmission medium. Has a transfer rate of 10 Mbps. Forms the underlying transport vehicle used by several upper-level protocols, including TCP/IP and XNS.

Fast Ethernet - A 100 Mbps technology based on the 10Base-T Ethernet CSMA/CD network access method.

Firewall – A firewall is a set of related programs, located at a network gateway server, which protects the resources of a network from users from other networks. (The term also implies the security policy that is used with the programs.) An enterprise with an intranet that allows its workers access to the wider Internet installs a firewall to prevent outsiders from accessing its own private data resources and for controlling what outside resources to which its own users have access. A firewall, working closely with a router, examines

Firmware - Programming that is inserted into programmable read-only memory, thus becoming a permanent part of a computing device.

Flash Memory - Flash memory is an electronic storage device capable of recording several megabytes of data files.

Fragmentation - Breaking a packet into smaller units when transmitting over a network medium that cannot support the original size of the packet.

Hardware - Hardware is the physical aspect of computers, telecommunications, and other information technology devices. The term arose as a way to distinguish the "box" and the electronic circuitry and components of a computer from the program you put in it to make it do things. The program came to be known as the software.

Hub - The device that serves as the central location for attaching wires from workstations. Can be passive, where there is no amplification of the signals; or active, where the hubs are used like repeaters to provide an extension of the cable that connects to a workstation.

IEEE (Institute of Electrical and Electronics Engineers) - The IEEE fosters the development of standards that often become national and international standards. The organization publishes a number of journals, has many local chapters, and has several large societies in special areas, such as the IEEE Computer Society.

IEEE 802.11 - Industry standard that enables wireless LAN hardware from different manufacturers to communicate.

Infrastructure Mode - A mode of operation of the 802.11b wireless protocol that allows all computers on a wired and wireless network to share a peripheral, such as a printer or high speed Internet Access.

IP Address - In the most widely installed level of the Internet Protocol (IP) today, an IP address is a 32-bit binary digit number that identifies each sender or receiver of information that is sent in packets across the Internet. When you request an HTML page or send e-mail, the Internet Protocol part of TCP/IP includes your IP address in the message (actually, in each of the packets if more than one is required) and sends it to the IP address that is obtained by looking up the domain name in the Uniform Resource Locator you requested or in the e-mail address you're sending a note to. At the other end, the recipient can see the IP address of the Web page requestor or the e-mail sender and can respond by sending another message using the IP address it received.

IPCONFIG - A utility that provides for querying, defining and managing IP addresses within a network. This utility is commonly used under Windows NT and 2000, for configuring networks with a static IP address.

IPSec (Internet Protocol Security) - A developing standard for security at the network or packet-processing layer of network communication. A big advantage of IPSec is that security arrangements can be handled without requiring changes to individual user computers.

IRQ (Interrupt Request) - A hardware interrupt on a PC. There are 16 IRQ lines used to signal the CPU that a peripheral event has started or terminated. Except for PCI devices, two devices cannot use the same line.

ISP (Internet Service Provider) - A company that provides individuals and companies access to the Internet and other related services such as website building and virtual hosting.

LAN (Local Area Network) - A group of computers and associated devices that share a common communications line and typically share the resources of a single processor or server within a small geographic area (for example, within an office building).

Latency - The time delay between when the first bit of a packet is received and the last bit is forwarded.

Link Quality - The quality of data being received.

MAC Address (Media Access Control Address) - A unique number assigned by the manufacturer to any Ethernet networking device, such as a network adapter, that allows the network to identify it at the hardware level.

Mbps (Megabits per Second) - One million bits per second; a unit of measurement of the speed of data transmission.

NAT (Network Address Translation) - The translation of an Internet Protocol address (IP address) used within one network to a different IP address known within another network. One network is designated the inside network and the other is the outside.

Network - A system that transmits any combination of voice, video, and/or data between users.

NIC (Network Interface Card) – A board installed in a computer system, usually a PC, to provide network communication capabilities to and from that computer system. Also called an adapter.

Packet Filtering - Discarding unwanted network traffic based on its originating address or range of addresses or its type (e-mail, file transfer, etc.).

PCI (Peripheral Component Interconnect) – A peripheral bus commonly used in PCs, Macintoshes and workstations. It was designed primarily by Intel and first appeared on PCs in late 1993. PCI provides a high-speed data path between the CPU and peripheral devices (video, disk, network, etc.). There are typically three or four PCI slots on the motherboard. In a Pentium PC, there is generally a mix of PCI and ISA slots or PCI and EISA slots. Early on, the PCI bus was known as a “local bus.” PCI allows IRQs to be shared, which helps to solve the problem of limited IRQs available on a PC. For example, if there were only one IRQ left over after ISA devices were given their required IRQs, all PCI devices could share it. In a PCI-only machine, there cannot be insufficient IRQs, as all can be shared.

PCMCIA - The PCMCIA (Personal Computer Memory Card International Association) is an industry group organized in 1989 to promote standards for a credit card-size memory or I/O device that would fit into a personal computer, usually a notebook or laptop computer.

Peer-to-Peer Networking – Allows users to share local resources between PCs without needing an access point or router.

Ping (Packet Internet Groper) – An Internet utility used to determine whether a particular IP address is online. It is used to test and debug a network by sending out a packet and waiting for a response.

Plug-and-Play – The ability of a computer system to configure expansion boards and other devices automatically without requiring the user to turn off the system during installation.

Port – A pathway into and out of the computer of a network device such as a switch or router. For example, the serial and parallel ports on a personal computer are external sockets for plugging in communications lines, modems, and printers.

PPPoE (Point to Point Protocol over Ethernet) – A method used mostly by DSL providers for connecting personal computers to a broadband modem for Internet access. It is similar to how a dial-up connection works but at higher

PPTP (Point-to-Point Tunneling Protocol) – A protocol (set of communication rules) that allows corporations to extend their own corporate network through private “tunnels” over the public Internet. Effectively, a corporation uses a wide-area network as a single large local area network. A company no longer needs to lease its own lines for wide-area communication but can securely use the public networks. This kind of interconnection is known as a virtual private network (VPN).

Print Server - A hardware device that enables a printer to be located anywhere in the network.

RIP (Routing Information Protocol) – A simple routing protocol that is part of the TCP/IP protocol suite. It determines a route based on the smallest hop count between source and destination. RIP is a distance vector protocol that routinely broadcasts routing information to its neighboring routers and is known to waste bandwidth. AppleTalk, DECnet, TCP/IP, NetWare, and VINES all use incompatible versions of RIP.

RJ-11 (Registered Jack-11) – A telephone connector that holds up to six wires. The RJ-11 is the common connector used to plug a telephone into a wall.

RJ-45 - A connector similar to a telephone connector that holds up to eight wires, used for connecting Ethernet devices.

Router - Protocol-dependent device that connects sub networks together. Routers are useful in breaking down a very large network into smaller sub networks; they introduce longer delays and typically have much lower throughput rates than bridges.

Server - Any computer whose function in a network is to provide user access to files, printing, communications, and other services.

Signal Strength – The amount of electromagnetic energy is present. A receiver (such as the one in your access point determines the strength of the signal for each wireless channel.

Software – Instructions for the computer. A series of instructions that performs a particular task is called a “program.” The two major categories of software are “system software” and “application software.” System software is made up of control programs such as the operating system and database management system (DBMS). Application software is any program that processes data for the user. A common misconception is that software is data. It is not, software tells the hardware how to process the data.

SOHO (Small Office/Home Office) – Market segment of professionals who work at home or in small offices.

Static IP Address - A permanent IP address that is assigned to a node in a TCP/IP network.

Static Routing - Forwarding data in a network via a fixed path. Static routing cannot adjust to changing line conditions as can dynamic routing.

Subnet Mask - The method used for splitting IP networks into a series of subgroups, or subnets. The mask is a binary pattern that is matched up with the IP address to form part of the host ID address field into a field for subnets.

Switch – 1. A data switch connects computing devices to host computers, allowing a large number of devices to share a limited number of ports.
2. A device for making, breaking, or changing the connections in an electrical circuit.

TCP (Transmission Control Protocol) – A method (protocol) used along with the Internet Protocol (IP) to send data in the form of message units between computers over the Internet. While IP takes care of handling the actual delivery of the data, TCP keeps track of the individual units of data (called packets) that a message is divided into for efficient routing through the Internet.

TCP/IP (Transmission Control Protocol/Internet Protocol) - The basic communication language or protocol of the Internet. It can also be used as a communication protocol in a private network (either an intranet or an extranet). When you are set up with access to the Internet, your computer uses the TCP/IP protocol.

FTTP (Trivial File Transfer Protocol) – A version of the TCP/IP FTP protocol that has no directory or password capability.

Throughput - The amount of data moved successfully from one place to another in a given time period.

Topology - A network's topology is a logical characterization of how the devices on the network are connected and the distances between them. The most common network devices include hubs, switches, routers, and gateways. Most large networks contain several levels of interconnection, the most important of which include edge connections, backbone connections, and wide-area connections.

UDP (User Datagram Protocol) – A communications method (protocol) that offers a limited amount of service when messages are exchanged between computers in a network that uses the Internet Protocol (IP). UDP is an alternative to the Transmission Control Protocol (TCP) and, together with IP, is sometimes referred to as UDP/IP. Like the Transmission Control Protocol, UDP uses the Internet Protocol to actually get a data unit (called a datagram) from one computer to another. Unlike TCP, however, UDP does not provide the service of dividing a message into packets (datagrams) and reassembling it at the other end. Specifically, UDP doesn't provide sequencing of the packets that the data arrives in. This means that the application program that uses UDP must be able to make sure that the entire message has arrived and is in the right order. Network applications that want to save processing time because they have very small data units to exchange (and therefore very little message reassembling to do) may prefer UDP to TCP.

Upgrade – To replace existing software or firmware with a newer version.

Upload – To send a file transmitted over a network. In a communications session, upload means transmit, and download means receive.

URL (Uniform Resource Locator) – The address that defines the route to a file on the Web or any other Internet facility. URLs are typed into the browser to access Web pages, and URLs are embedded within the pages themselves to provide the hypertext links to other pages.

VLAN (Virtual LAN) – A logical association that allows users to communicate as if they were physically connected to a single LAN, independent of the actual physical configuration of the network.

WAN (Wide-Area Network) - A communications network that covers a wide geographic area, such as a state or country.

WEP (Wired Equivalent Privacy) – A data privacy mechanism based on 64-bit and 128-bit shared key algorithms, as described in the IEEE802.11 standard.

WINIPCFG - Configuration utility based on the Win32 API for querying, defining, and managing IP addresses within a network. A commonly used utility for configuring networks with static IP addresses.

Workgroup - Two or more individuals that share files and databases.

MEMO

PCW 100 802.11b WIRELESS USB ADAPTER
PCW 200 802.11b WIRELESS PCI ADAPTER
PCW 300 802.11b WIRELESS PCMCIA CARD
PCS 500 5 PORT FAST ETHERNET SWITCH
ENR 1504 10/100 4 PORT CABLE/DSL ROUTER
WNR 2004 802.11b WIRELESS ACCESS POINT/4 PORT ROUTER

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