

# Manual Configuration

## Dynamic (Cable)

**My Internet Connection:** Select **Dynamic IP (DHCP)** to obtain IP Address information automatically from your ISP. Select this option if your ISP does not give you any IP numbers to use. This option is commonly used for cable modem services such as Comcast and Cox.

**Enable Advanced DNS Service:** Advanced Domain Name System (DNS) services enhances your Internet performance by getting you the information and web pages you are looking for faster and more reliably. In addition, it improves your overall Internet experience by correcting many common typo mistakes automatically, taking you where you intended to go and saving you valuable time.

**Disclaimer:** D-Link makes no warranty as to the availability, reliability, functionality and operation of the Advanced DNS service or its features.

**Host Name:** The Host Name is optional but may be required by some ISPs. Leave blank if you are not sure.

**Use Unicasting:** Check the box if you are having problems obtaining an IP address from your ISP.

**Primary/Secondary DNS Server:** Enter the Primary and secondary DNS server IP addresses assigned by your ISP. These addresses are usually obtained automatically from your ISP. Leave at 0.0.0.0 if you did not specifically receive these from your ISP.

**MTU:** Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1500 is the default MTU.

**MAC Address:** The default MAC Address is set to the Internet port's physical interface MAC address on the Broadband Router. It is not recommended that you change the default MAC address unless required by your ISP. You can use the **Clone Your PC's MAC Address** button to replace the Internet port's MAC address with the MAC address of your Ethernet card.

**INTERNET CONNECTION TYPE**

Choose the mode to be used by the router to connect to the Internet.

My Internet Connection is : Dynamic IP (DHCP)

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**ADVANCED DNS SERVICE**

Advanced DNS is a free security option that provides Anti-Phishing to protect your Internet connection from fraud and navigation improvements such as auto-correction of common URL typos.

Enable Advanced DNS Service :

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**DYNAMIC IP (DHCP) INTERNET CONNECTION TYPE :**

Use this Internet connection type if your Internet Service Provider (ISP) didn't provide you with IP Address information and/or a username and password.

Host Name :

Use Unicasting :  (compatibility for some DHCP Servers)

Primary DNS Server :

Secondary DNS Server :

MTU :  (bytes) MTU default = 1500

MAC Address :

# Internet Setup

## PPPoE (DSL)

Choose PPPoE (Point to Point Protocol over Ethernet) if your ISP uses a PPPoE connection. Your ISP will provide you with a username and password. This option is typically used for DSL services. Make sure to remove your PPPoE software from your computer. The software is no longer needed and will not work through a router.

**My Internet Connection:** Select **PPPoE (Username/Password)** from the drop-down menu.

**Address Mode:** Select **Static** if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses. In most cases, select **Dynamic**.

**IP Address:** Enter the IP address (Static PPPoE only).

**User Name:** Enter your PPPoE user name.

**Password:** Enter your PPPoE password and then retype the password in the next box.

**Service Name:** Enter the ISP Service Name (optional).

**Reconnection Mode:** Select either **Always-on**, **On-Demand**, or **Manual**.

**Maximum Idle Time:** Enter the Primary and Secondary DNS Server Addresses (Static PPPoE only).

**DNS Addresses:** Enter a maximum idle time during which the Internet connection is maintained during inactivity. To disable this feature, enable Auto-reconnect.

**MTU:** Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1492 is the default MTU.

**MAC Address:** The default MAC Address is set to the Internet port's physical interface MAC address on the Broadband Router. It is not recommended that you change the default MAC address unless required by your ISP. You can use the **Clone Your PC's MAC Address** button to replace the Internet port's MAC address with the MAC address of your Ethernet card.

**WAN**

Use this section to configure your Internet Connection type. There are several connection types to choose from: Static IP, DHCP, PPPoE, PPTP, L2TP, and BigPond. If you are unsure of your connection method, please contact your Internet Service Provider.

**Note :** If using the PPPoE option, you will need to remove or disable any PPPoE client software on your computers.

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**INTERNET CONNECTION TYPE**

Choose the mode to be used by the router to connect to the Internet.

**My Internet Connection is :** PPPoE (Username / Password) ▼

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**PPPOE INTERNET CONNECTION TYPE :**

Enter the information provided by your Internet Service Provider (ISP).

**Address Mode :**  Dynamic IP  Static IP

**IP Address :**

**Username :**

**Password :**

**Verify Password :**

**Service Name :**  (optional)

**Reconnect Mode :**  Always on  On demand  Manual

**Maximum Idle Time :**  (minutes, 0=infinite)

**Primary DNS Server :**  (optional)

**Secondary DNS Server :**  (optional)

**MTU :**  (bytes) MTU default = 1492

**MAC Address :**

# Internet Setup

## PPTP

Choose PPTP (Point-to-Point-Tunneling Protocol ) if your ISP uses a PPTP connection. Your ISP will provide you with a username and password. This option is typically used for DSL services.

**Address Mode:** Select **Static** if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses. In most cases, select **Dynamic**.

**PPTP IP Address:** Enter the IP address (Static PPTP only).

**PPTP Subnet Mask:** Enter the Primary and Secondary DNS Server Addresses (Static PPTP only).

**PPTP Gateway:** Enter the Gateway IP Address provided by your ISP.

**PPTP Server IP:** Enter the Server IP provided by your ISP (optional).

**Username:** Enter your PPTP username.

**Password:** Enter your PPTP password and then retype the password in the next box.

**Reconnect Mode:** Select either **Always-on**, **On-Demand**, or **Manual**.

**Maximum Idle Time:** Enter a maximum idle time during which the Internet connection is maintained during inactivity. To disable this feature, enable Auto-reconnect.

**WAN**

Use this section to configure your Internet Connection type. There are several connection types to choose from: Static IP, DHCP, PPPoE, PPTP, L2TP, and BigPond. If you are unsure of your connection method, please contact your Internet Service Provider.

**Note :** If using the PPPoE option, you will need to remove or disable any PPPoE client software on your computers.

**INTERNET CONNECTION TYPE**

Choose the mode to be used by the router to connect to the Internet.

**My Internet Connection is :**

**STATIC IP ADDRESS INTERNET CONNECTION TYPE :**

Enter the static address information provided by your Internet Service Provider (ISP).

**IP Address :**

**Subnet Mask :**

**Default Gateway :**

**Primary DNS Server :**

**Secondary DNS Server :**

**MTU :**  (bytes) MTU default = 1500

**MAC Address :**

**DNS Servers:** The DNS server information will be supplied by your ISP (Internet Service Provider.)

**MTU:** Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1400 is the default MTU.

**MAC Address:** The default MAC Address is set to the Internet port's physical interface MAC address on the Broadband Router. It is not recommended that you change the default MAC address unless required by your ISP. You can use the **Clone Your PC's MAC Address** button to replace the Internet port's MAC address with the MAC address of your Ethernet card.

# Internet Setup

## L2TP

Choose L2TP (Layer 2 Tunneling Protocol) if your ISP uses a L2TP connection. Your ISP will provide you with a username and password. This option is typically used for DSL services.

**Address Mode:** Select **Static** if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses. In most cases, select **Dynamic**.

**L2TP IP Address:** Enter the L2TP IP address supplied by your ISP (Static only).

**L2TP Subnet Mask:** Enter the Subnet Mask supplied by your ISP (Static only).

**L2TP Gateway:** Enter the Gateway IP Address provided by your ISP.

**L2TP Server IP:** Enter the Server IP provided by your ISP (optional).

**Username:** Enter your L2TP username.

**Password:** Enter your L2TP password and then retype the password in the next box.

**Reconnect Mode:** Select either **Always-on**, **On-Demand**, or **Manual**.

**Maximum Idle Time:** Enter a maximum idle time during which the Internet connection is maintained during inactivity. To disable this feature, enable Auto-reconnect.

**DNS Servers:** Enter the Primary and Secondary DNS Server Addresses (Static L2TP only).

**WAN**

Use this section to configure your Internet Connection type. There are several connection types to choose from: Static IP, DHCP, PPPoE, PPTP, L2TP, and BigPond. If you are unsure of your connection method, please contact your Internet Service Provider.

**Note :** If using the PPPoE option, you will need to remove or disable any PPPoE client software on your computers.

**INTERNET CONNECTION TYPE**

Choose the mode to be used by the router to connect to the Internet.

**My Internet Connection is :** L2TP (Username / Password) ▾

**L2TP INTERNET CONNECTION TYPE :**

Enter the information provided by your Internet Service Provider (ISP).

**Address Mode :**  Dynamic IP  Static IP

**L2TP IP Address :**

**L2TP Subnet Mask :**

**L2TP Gateway IP Address :**

**L2TP Server IP Address :**

**Username :**

**Password :**

**Verify Password :**

**Reconnect Mode :**  Always on  On demand  Manual

**Maximum Idle Time :**  (minutes, 0=infinite)

**Primary DNS Server :**

**Secondary DNS Server :**

**MTU :**  (bytes) MTU default = 1400

**MAC Address :**

**MTU:** Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1400 is the default MTU.

**Clone MAC Address:** The default MAC Address is set to the Internet port's physical interface MAC address on the Broadband Router. It is not recommended that you change the default MAC address unless required by your ISP. You can use the **Clone Your PC's MAC Address** button to replace the Internet port's MAC address with the MAC address of your Ethernet card.

## Internet Setup

### Static (assigned by ISP)

Select Static IP Address if all the Internet port's IP information is provided to you by your ISP. You will need to enter in the IP address, subnet mask, gateway address, and DNS address(es) provided to you by your ISP. Each IP address entered in the fields must be in the appropriate IP form, which are four octets separated by a dot (x.x.x.x). The Router will not accept the IP address if it is not in this format.

**IP Address:** Enter the IP address assigned by your ISP.

**Subnet Mask:** Enter the Subnet Mask assigned by your ISP.

**Default Gateway:** Enter the Gateway assigned by your ISP.

**DNS Servers:** The DNS server information will be supplied by your ISP (Internet Service Provider.)

**MTU:** Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1500 is the default MTU.

**MAC Address:** The default MAC Address is set to the Internet port's physical interface MAC address on the Broadband Router. It is not recommended that you change the default MAC address unless required by your ISP. You can use the **Clone Your PC's MAC Address** button to replace the Internet port's MAC address with the MAC address of your Ethernet card.

**WAN**

**Internet Connection**

Use this section to configure your Internet Connection type. There are several connection types to choose from: Static IP, DHCP, PPPoE, PPTP, L2TP, and BigPond. If you are unsure of your connection method, please contact your Internet Service Provider.

**Note:** If using the PPPoE option, you will need to remove or disable any PPPoE client software on your computers.

**INTERNET CONNECTION TYPE**

Choose the mode to be used by the router to connect to the Internet.

My Internet Connection is :

**STATIC IP ADDRESS INTERNET CONNECTION TYPE :**

Enter the static address information provided by your Internet Service Provider (ISP).

**IP Address :**

**Subnet Mask :**

**Default Gateway :**

**Primary DNS Server :**

**Secondary DNS Server :**

**MTU :**  (bytes) MTU default = 1500

**MAC Address :**

# Wireless Settings

## 802.11n/g (2.4GHz)

**Enable Wireless:** Check the box to enable the wireless function. If you do not want to use wireless, uncheck the box to disable all the wireless functions.

**Schedule:** Select the time frame that you would like your wireless network enabled. The schedule may be set to *Always*. Any schedule you create will be available in the drop-down menu. Click **Add New** to create a new schedule.

**Wireless Network Name:** Service Set Identifier (SSID) is the name of your wireless network. Create a name using up to 32 characters. The SSID is case-sensitive.

**802.11 Mode:** Select one of the following:  
**802.11g Only** - Select if all of your wireless clients are 802.11g.  
**Mixed 802.11n and 802.11g** - Select if you are using both 802.11n and 802.11g wireless clients.  
**802.11n Only** - Select only if all of your wireless clients are 802.11n.

**Enable Auto Channel Scan:** The **Auto Channel Scan** setting can be selected to allow the DIR-855 to choose the channel with the least amount of interference.

**Wireless Channel:** Indicates the channel setting for the DIR-855. By default the channel is set to 6. The Channel can be changed to fit the channel setting for an existing wireless network or to customize the wireless network. If you enable **Auto Channel Scan**, this option will be greyed out.

**Transmission Rate:** Select the transmit rate. It is strongly suggested to select **Best (Auto)** for best performance.

WIRELESS NETWORK SETTINGS

**Wireless Band :** 2.4GHz Band

**Enable Wireless :**  Always ▾ Add New

**Wireless Network Name :**  (Also called the SSID)

**802.11 Mode :** Mixed 802.11n, 802.11g and 802.11b ▾

**Enable Auto Channel Scan :**

**Wireless Channel :** 2.437 GHz - CH 6 ▾

**Transmission Rate :** Best (automatic) ▾ (Mbit/s)

**Channel Width :** 20 MHz ▾

**Visibility Status :**  Visible  Invisible

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WIRELESS SECURITY MODE

To protect your privacy you can configure wireless security features. This device supports three wireless security modes, including WEP, WPA-Personal, and WPA-Enterprise. WEP is the original wireless encryption standard. WPA provides a higher level of security. WPA-Personal does not require an authentication server. The WPA-Enterprise option requires an external RADIUS server.

**Security Mode :** None ▾



**Channel Width:** Select the Channel Width:

**Auto 20/40** - This is the default setting. Select if you are using both 802.11n and non-802.11n wireless devices.

**20MHz** - Select if you are not using any 802.11n wireless clients.

**Visibility Status:** Select **Invisible** if you do not want the SSID of your wireless network to be broadcasted by the DIR-855. If Invisible is selected, the SSID of the DIR-855 will not be seen by Site Survey utilities so your wireless clients will have to know the SSID of your DIR-855 in order to connect to it.

**Wireless Security:** Refer to page 68 for more information regarding wireless security.

# Wireless Settings

## 802.11n/a (5GHz)

**Enable Wireless:** Check the box to enable the wireless function. If you do not want to use wireless, uncheck the box to disable all the wireless functions.

**Schedule:** Select the time frame that you would like your wireless network enabled. The schedule may be set to Always. Any schedule you create will be available in the drop-down menu. Click **Add New** to create a new schedule.

**Wireless Network Name:** Service Set Identifier (SSID) is the name of your wireless network. Create a name using up to 32 characters. The SSID is case-sensitive.

**802.11 Mode:** Select one of the following:  
**802.11a Only** - Select if all of your wireless clients are 802.11a.  
**Mixed 802.11n and 802.11a** - Select if you are using both 802.11n and 802.11a wireless clients.  
**802.11n Only** - Select only if all of your wireless clients are 802.11n.

**Enable Auto Channel Scan:** The **Auto Channel Scan** setting can be selected to allow the DIR-855 to choose the channel with the least amount of interference.

**Wireless Channel:** Indicates the channel setting for the DIR-855. By default the channel is set to 6. The Channel can be changed to fit the channel setting for an existing wireless network or to customize the wireless network. If you enable **Auto Channel Scan**, this option will be greyed out.

**Transmission Rate:** Select the transmit rate. It is strongly suggested to select **Best (Auto)** for best performance.

WIRELESS NETWORK SETTINGS

**Wireless Band : 5GHz Band**

**Enable Wireless :**  Always ▾ Add New

**Wireless Network Name :**  (Also called the SSID)

**802.11 Mode :**  ▾

**Enable Auto Channel Scan :**

**Wireless Channel :**  ▾

**Transmission Rate :**  ▾ (Mbit/s)

**Channel Width :**  ▾

**Visibility Status :**  Visible  Invisible

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WIRELESS SECURITY MODE

To protect your privacy you can configure wireless security features. This device supports three wireless security modes, including WEP, WPA-Personal, and WPA-Enterprise. WEP is the original wireless encryption standard. WPA provides a higher level of security. WPA-Personal does not require an authentication server. The WPA-Enterprise option requires an external RADIUS server.

**Security Mode :**  ▾

**Channel Width:** Select the Channel Width:

**Auto 20/40** - This is the default setting. Select if you are using both 802.11n and non-802.11n wireless devices.

**20MHz** - Select if you are not using any 802.11n wireless clients.

**Visibility Status:** Select **Invisible** if you do not want the SSID of your wireless network to be broadcasted by the DIR-855. If Invisible is selected, the SSID of the DIR-855 will not be seen by Site Survey utilities so your wireless clients will have to know the SSID of your DIR-855 in order to connect to it.

**Wireless Security:** Refer to page 68 for more information regarding wireless security.

## Network Settings

This section will allow you to change the local network settings of the router and to configure the DHCP settings.

### LAN Settings

**Router IP Address:** Enter the IP address of the router. The default IP address is 192.168.0.1.

If you change the IP address, once you click **Apply**, you will need to enter the new IP address in your browser to get back into the configuration utility.

**Subnet Mask:** Enter the Subnet Mask. The default subnet mask is 255.255.255.0.

**Local Domain:** Enter the Domain name (Optional).

**Enable DNS Relay:** Uncheck the box to transfer the DNS server information from your ISP to your computers. If checked, your computers will use the router for a DNS server.

**ROUTER SETTINGS**

Use this section to configure the internal network settings of your router. The IP Address that is configured here is the IP Address that you use to access the Web-based management interface. If you change the IP Address here, you may need to adjust your PC's network settings to access the network again.

**Router IP Address :**

**Subnet Mask :**

**Local Domain Name :**  (optional)

**Enable DNS Relay :**

## DHCP Server Settings

DHCP stands for Dynamic Host Control Protocol. The DIR-855 has a built-in DHCP server. The DHCP Server will automatically assign an IP address to the computers on the LAN/private network. Be sure to set your computers to be DHCP clients by setting their TCP/IP settings to “Obtain an IP Address Automatically.” When you turn your computers on, they will automatically load the proper TCP/IP settings provided by the DIR-855. The DHCP Server will automatically allocate an unused IP address from the IP address pool to the requesting computer. You must specify the starting and ending address of the IP address pool.

**Enable DHCP Server:** Check this box to enable the DHCP server on your router. Uncheck to disable this function.

**DHCP IP Address Range:** Enter the starting and ending IP addresses for the DHCP server’s IP assignment.

***Note:** If you statically (manually) assign IP addresses to your computers or devices, make sure the IP addresses are outside of this range or you may have an IP conflict.*

**DHCP Lease Time:** The length of time for the IP address lease. Enter the Lease time in minutes.

**Always Broadcast:** Check to send a “keep alive” which may be required for some DHCP clients.

**Add DHCP Reservation:** Refer to the next page for the DHCP Reservation function.

**DHCP SERVER SETTINGS**

Use this section to configure the built-in DHCP Server to assign IP addresses to the computers on your network.

**Enable DHCP Server :**

**DHCP IP Address Range :**  to

**DHCP Lease Time :**  (minutes)

**Always broadcast :**  (compatibility for some DHCP Clients)

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**ADD DHCP RESERVATION**

**Enable :**

**Computer Name :**  <<

**IP Address :**

**MAC Address :**

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**DHCP RESERVATIONS LIST**

Enable	Computer Name	MAC Address	IP Address

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**NUMBER OF DYNAMIC DHCP CLIENTS : 1**

Computer Name	IP Address	MAC Address	Expire Time		
prescott	192.168.0.156	00:11:09:2a:94:11	23 Hours 18 Minutes	<a href="#">Revoke</a>	<a href="#">Reserve</a>

## DHCP Reservation

If you want a computer or device to always have the same IP address assigned, you can create a DHCP reservation. The router will assign the IP address only to that computer or device.

**Note:** This IP address must be within the DHCP IP Address Range.

**Enable:** Check this box to enable the reservation.

**Computer Name:** Enter the computer name or select from the drop down menu and click <<.

**IP Address:** Enter the IP address you want to assign to the computer or device. This IP Address must be within the DHCP IP Address Range.

**MAC Address:** Enter the MAC address of the computer or device.

**Copy Your PC's MAC Address:** If you want to assign an IP address to the computer you are currently on, click this button to populate the fields.

**Save:** Click **Save** to save your entry. You must click **Save Settings** at the top to activate your reservations.

**DHCP SERVER SETTINGS**

Use this section to configure the built-in DHCP Server to assign IP addresses to the computers on your network.

**Enable DHCP Server :**

**DHCP IP Address Range :** 192.168.0.100 to 192.168.0.199

**DHCP Lease Time :** 1440 (minutes)

**Always broadcast :**  (compatibility for some DHCP Clients)

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**ADD DHCP RESERVATION**

**Enable :**

**Computer Name :**  << Computer Name

**IP Address :**

**MAC Address :**

---

**DHCP RESERVATIONS LIST**

Enable	Computer Name	MAC Address	IP Address	

---

**NUMBER OF DYNAMIC DHCP CLIENTS : 1**

Computer Name	IP Address	MAC Address	Expire Time		
prescott	192.168.0.156	00:11:09:2a:94:11	23 Hours 18 Minutes	<a href="#">Revoke</a>	<a href="#">Reserve</a>

## USB Settings

Use this section to configure your USB port. There are two configurations to choose from: Network USB and WCN Configuration.

**Note:** If using the Network USB option, users will need to install the Network USB Utility into the computers to share the USB device through the router.

**USB Settings:** Choose between these two configuration: Network USB and WCN Configuration.

**Network USB:** Please set the Network USB Detection interval time.

**Note:** Please see the SharePort Manual on the CD for more information.

**USB SETTINGS**

Use this section to configure your USB port. There are several configurations to choose from: Network USB, 3G USB Adapter and WCN Configuration.

**Note :** If using the Network USB option, users will need to install the Network USB Utility into their computers to share the USB device through the router.

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**USB SETTINGS**

**Choose the type of USB device to be plugged into the USB port.**

My plug of USB type is :

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**NETWORK USB :**

**Please set the Network USB Detection interval time, the router will automatically detect the USB device.**

Network USB Detection interval :  sec (range:3-600 sec.)

## Virtual Server

The DIR-855 can be configured as a virtual server so that remote users accessing Web or FTP services via the public IP address can be automatically redirected to local servers in the LAN (Local Area Network).

The DIR-855 firewall feature filters out unrecognized packets to protect your LAN network so all computers networked with the DIR-855 are invisible to the outside world. If you wish, you can make some of the LAN computers accessible from the Internet by enabling Virtual Server. Depending on the requested service, the DIR-855 redirects the external service request to the appropriate server within the LAN network.

The DIR-855 is also capable of port-redirection meaning incoming traffic to a particular port may be redirected to a different port on the server computer.

Each virtual service that is created will be listed at the bottom of the screen in the Virtual Servers List. There are pre-defined virtual services already in the table. You may use them by enabling them and assigning the server IP to use that particular virtual service.

For a list of ports for common applications, please visit [http://support.dlink.com/faq/view.asp?prod\\_id=1191](http://support.dlink.com/faq/view.asp?prod_id=1191).



This will allow you to open a single port. If you would like to open a range of ports, refer to page 36.

**Name:** Enter a name for the rule or select an application from the drop-down menu. Select an application and click << to populate the fields.

**IP Address:** Enter the IP address of the computer on your local network that you want to allow the incoming service to. If your computer is receiving an IP address automatically from the router (DHCP), your computer will be listed in the “Computer Name” drop-down menu. Select your computer and click <<.

**Private Port/ Public Port:** Enter the port that you want to open next to Private Port and Public Port. The private and public ports are usually the same. The public port is the port seen from the Internet side, and the private port is the port being used by the application on the computer within your local network.

**Protocol Type:** Select **TCP**, **UDP**, or **Both** from the drop-down menu.

**Schedule:** The schedule of time when the Virtual Server Rule will be enabled. The schedule may be set to Always, which will allow the particular service to always be enabled. You can create your own times in the **Tools > Schedules** section.

**Inbound Filter:** Select **Allow All** (most common) or a created Inbound filter. You may create your own inbound filters in the **Advanced > Inbound Filter** page.

**DIR-855** // SETUP ADVANCED TOOLS STATUS SUPPORT

**VIRTUAL SERVER**

The Virtual Server option allows you to define a single public port on your router for redirection to an internal LAN IP Address and Private LAN port if required. This feature is useful for hosting online services such as FTP or Web Servers.

Save Settings Don't Save Settings

**24 -- VIRTUAL SERVERS LIST**

		Port	Traffic Type	Schedule	Inbound Filter
<input type="checkbox"/>	Name [ ] << Application Name	Public 0	Both	Always	Allow All
	IP Address 0.0.0.0 << Computer Name	Private 0	Protocol 0		Allow All
<input type="checkbox"/>	Name [ ] << Application Name	Public 0	Both	Always	Allow All
	IP Address 0.0.0.0 << Computer Name	Private 0	Protocol 0		Allow All
<input type="checkbox"/>	Name [ ] << Application Name	Public 0	Both	Always	Allow All
	IP Address 0.0.0.0 << Computer Name	Private 0	Protocol 0		Allow All
<input type="checkbox"/>	Name [ ] << Application Name	Public 0	Both	Always	Allow All
	IP Address 0.0.0.0 << Computer Name	Private 0	Protocol 0		Allow All
<input type="checkbox"/>	Name [ ] << Application Name	Public 0	Both	Always	Allow All
	IP Address 0.0.0.0 << Computer Name	Private 0	Protocol 0		Allow All
<input type="checkbox"/>	Name [ ] << Application Name	Public 0	Both	Always	Allow All
	IP Address 0.0.0.0 << Computer Name	Private 0	Protocol 0		Allow All

**Helpful Hints...**

Check the **Application Name** drop down menu for a list of predefined server types. If you select one of the predefined server types, click the arrow button next to the drop down menu to fill out the corresponding field.

You can select a computer from the list of DHCP clients in the **Computer Name** drop down menu, or you can manually enter the IP address of the computer at which you would like to open the specified port.

Select a schedule for when the virtual server will be enabled. If you do not see the schedule you need in the list of schedules, go to the **Tools → Schedules** screen and create a new schedule.

Select a filter that restricts the Internet hosts that can access this virtual server to hosts that you trust. If you do not see the filter you need in the list of filters, go to the **Advanced → Inbound Filter** screen and create a new filter.

**More...**

# Port Forwarding

This will allow you to open a single port or a range of ports.

**Name:** Enter a name for the rule or select an application from the drop-down menu. Select an application and click << to populate the fields.

**IP Address:** Enter the IP address of the computer on your local network that you want to allow the incoming service to. If your computer is receiving an IP address automatically from the router (DHCP), you computer will be listed in the “Computer Name” drop-down menu. Select your computer and click <<.

**TCP/UDP:** Enter the TCP and/or UDP port or ports that you want to open. You can enter a single port or a range of ports. Separate ports with a common.

Example: 24,1009,3000-4000

**Schedule:** The schedule of time when the Virtual Server Rule will be enabled. The schedule may be set to Always, which will allow the particular service to always be enabled. You can create your own times in the **Tools > Schedules** section.

**Inbound Filter:** Select **Allow All** (most common) or a created Inbound filter. You may create your own inbound filters in the **Advanced > Inbound Filter** page.

**DIR-855** // SETUP ADVANCED TOOLS STATUS SUPPORT

**PORT FORWARDING**

This option is used to open multiple ports or a range of ports in your router and redirect data through those ports to a single PC on your network. This feature allows you to enter ports in various formats including, Port Ranges (100-150), Individual Ports (80, 68, 888), or Mixed (1020-5000, 689).

Save Settings Don't Save Settings

**24 -- PORT FORWARDING RULES**

	Name	IP Address	Ports to Open	Inbound Filter
<input type="checkbox"/>	<< Application Name	<< Computer Name	TCP	Schedule Always
<input type="checkbox"/>	<< Application Name	<< Computer Name	UDP	Inbound Filter Allow All
<input type="checkbox"/>	<< Application Name	<< Computer Name	TCP	Schedule Always
<input type="checkbox"/>	<< Application Name	<< Computer Name	UDP	Inbound Filter Allow All
<input type="checkbox"/>	<< Application Name	<< Computer Name	TCP	Schedule Always
<input type="checkbox"/>	<< Application Name	<< Computer Name	UDP	Inbound Filter Allow All
<input type="checkbox"/>	<< Application Name	<< Computer Name	TCP	Schedule Always
<input type="checkbox"/>	<< Application Name	<< Computer Name	UDP	Inbound Filter Allow All

**Helpful Hints...**

Check the **Application Name** drop down menu for a list of predefined applications. If you select one of the predefined applications, click the arrow button next to the drop down menu to fill out the corresponding field.

You can select a computer from the list of DHCP clients in the **Computer Name** drop down menu, or you can manually enter the IP address of the LAN computer to which you would like to open the specified port.

Select a schedule for when the rule will be enabled. If you do not see the schedule you need in the list of schedules, go to the **Tools → Schedules** screen and create a new schedule.

You can enter ports in various formats:

Range (50-100)  
Individual (80, 68, 888)  
Mixed (1020-5000, 689)

**More...**

# Application Rules

Some applications require multiple connections, such as Internet gaming, video conferencing, Internet telephony and others. These applications have difficulties working through NAT (Network Address Translation). Special Applications makes some of these applications work with the DIR-855. If you need to run applications that require multiple connections, specify the port normally associated with an application in the “Trigger Port” field, select the protocol type as TCP or UDP, then enter the firewall (public) ports associated with the trigger port to open them for inbound traffic.

The DIR-855 provides some predefined applications in the table on the bottom of the web page. Select the application you want to use and enable it.

**Name:** Enter a name for the rule. You may select a pre-defined application from the drop-down menu and click <<.

**Trigger:** This is the port used to trigger the application. It can be either a single port or a range of ports.

**Traffic Type:** Select the protocol of the trigger port (TCP, UDP, or Both).

**Firewall:** This is the port number on the Internet side that will be used to access the application. You may define a single port or a range of ports. You can use a comma to add multiple ports or port ranges.

**Traffic Type:** Select the protocol of the firewall port (TCP, UDP, or Both).

**Schedule:** The schedule of time when the Application Rule will be enabled. The schedule may be set to Always, which will allow the particular service to always be enabled. You can create your own times in the **Tools > Schedules** section.

**APPLICATION RULES**

This option is used to open single or multiple ports on your router when the router senses data sent to the Internet on a "trigger" port or port range. Special Applications rules apply to all computers on your internal network.

Save Settings    Don't Save Settings

24 -- APPLICATION RULES

	Name	Application	Trigger	Traffic Type	Schedule
<input type="checkbox"/>	<input type="text"/>	<< Application Name	<input type="text"/>	TCP	Always
<input type="checkbox"/>	<input type="text"/>	<< Application Name	<input type="text"/>	TCP	Always
<input type="checkbox"/>	<input type="text"/>	<< Application Name	<input type="text"/>	TCP	Always
<input type="checkbox"/>	<input type="text"/>	<< Application Name	<input type="text"/>	TCP	Always
<input type="checkbox"/>	<input type="text"/>	<< Application Name	<input type="text"/>	TCP	Always

**Helpful Hints...**

Use this feature if you are trying to execute one of the listed network applications and it is not communicating as expected.

Check the **Application Name** drop down menu for a list of predefined applications. If you select one of the predefined applications, click the arrow button next to the drop down menu to fill out the corresponding field.

Select a schedule for when the service will be enabled. If you do not see the schedule you need in the list of schedules, go to the **Tools → Schedules** screen and create a new schedule.

More...

# QoS Engine

The QoS Engine option helps improve your network gaming performance by prioritizing applications. By default the QoS Engine settings are disabled and application priority is not classified automatically.

**Enable StreamEngine:** This option is disabled by default. Enable this option for better performance and experience with online games and other interactive applications, such as VoIP.

**Dynamic Fragmentation:** This option should be enabled when you have a slow Internet uplink. It helps to reduce the impact that large low priority network packets can have on more urgent ones.

**Automatic Uplink Speed:** This option is enabled by default when the QoS Engine option is enabled. This option will allow your router to automatically determine the uplink speed of your Internet connection.

**Measured Uplink Speed:** This displays the detected uplink speed.

**Manual Uplink Speed:** The speed at which data can be transferred from the router to your ISP. This is determined by your ISP. ISP's often speed as a download/upload pair. For example, 1.5Mbits/284Kbits. Using this example, you would enter 284. Alternatively you can test your uplink speed with a service such as [www.dslreports.com](http://www.dslreports.com).

**Connection Type:** By default, the router automatically determines whether the underlying connection is an xDSL/Frame-relay network or some other connection type (such as cable modem or Ethernet), and it displays the result as Detected xDSL or Frame Relay Network. If you have an unusual network connection in which you are actually connected via xDSL but for which you configure either "Static" or "DHCP" in the Internet settings, setting this option to xDSL or Other Frame Relay Network ensures that the router will recognize that it needs to shape traffic slightly differently in order to give the best performance. Choosing xDSL or Other Frame Relay Network causes the measured uplink speed to be reported slightly lower than before on such connections, but gives much better results.

**Detected xDSL:** When Connection Type is set to automatic, the automatically detected connection type is displayed here.

The screenshot shows the D-Link DIR-855 router's configuration interface. The top navigation bar includes tabs for SETUP, ADVANCED, TOOLS, STATUS, and SUPPORT. The QoS ENGINE section is active, displaying the following settings:

- Enable StreamEngine:**
- Dynamic Fragmentation:**
- Automatic Uplink Speed:**
- Measured Uplink Speed:** 1126 kbps
- Manual Uplink Speed:** 128 kbps (with a dropdown for "Select Transmission Rate")
- Connection Type:** Auto-detect (with a dropdown arrow)
- Detected xDSL Or Other Frame Relay Network:** No

Buttons for "Save Settings" and "Don't Save Settings" are visible. A "Helpful Hints..." section on the right provides additional information about uplink speed measurement.

## Network Filters

Use MAC (Media Access Control) Filters to allow or deny LAN (Local Area Network) computers by their MAC addresses from accessing the network. You can either manually add a MAC address or select the MAC address from the list of clients that are currently connected to the Broadband Router.

**Configure MAC Filtering:** Select **Turn MAC Filtering Off, Allow MAC addresses listed below**, or **Deny MAC addresses listed below** from the drop-down menu.

**MAC Address:** Enter the MAC address you would like to filter.

To find the MAC address on a computer, please refer to the *Networking Basics* section in this manual.

**DHCP Client:** Select a DHCP client from the drop-down menu and click << to copy that MAC Address.

**Clear:** Click to remove the MAC address.

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DIR-855

SETUP ADVANCED TOOLS STATUS SUPPORT

**MAC ADDRESS FILTER**

The MAC (Media Access Controller) Address filter option is used to control network access based on the MAC Address of the network adapter. A MAC address is a unique ID assigned by the manufacturer of the network adapter. This feature can be configured to ALLOW or DENY network/Internet access.

Save Settings Don't Save Settings

**24 -- MAC FILTERING RULES**

Configure MAC Filtering below:  
Turn MAC Filtering OFF

MAC Address		DHCP Client List	
	<<	Computer Name	Clear
	<<	Computer Name	Clear
	<<	Computer Name	Clear
	<<	Computer Name	Clear
	<<	Computer Name	Clear

**Helpful Hints...**

Create a list of MAC addresses that you would either like to allow or deny access to your network.

Computers that have obtained an IP address from the router's DHCP server will be in the DHCP Client List. Select a device from the drop down menu, then click the arrow to add that device's MAC address to the list.

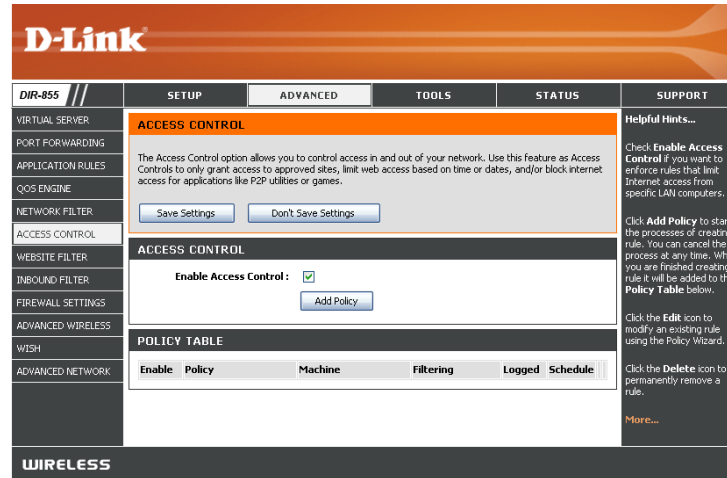
Click the **Clear** button to remove the MAC address from the MAC Filtering list.

[More...](#)

# Access Control

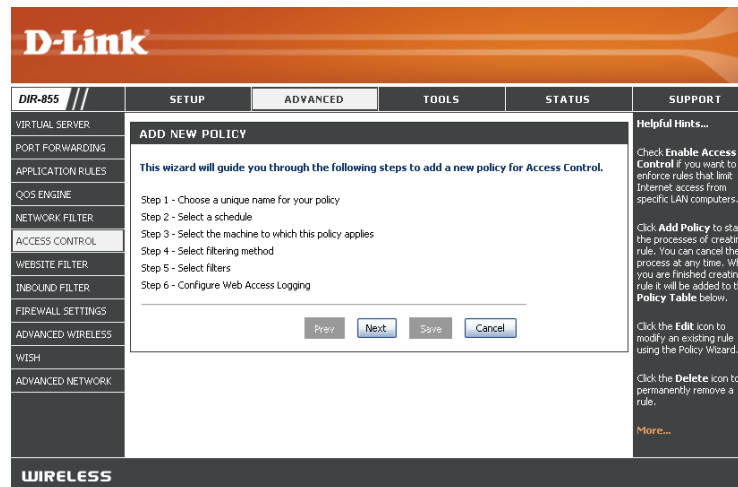
The Access Control section allows you to control access in and out of your network. Use this feature as Parental Controls to only grant access to approved sites, limit web access based on time or dates, and/or block access from applications like P2P utilities or games.

**Add Policy:** Click the **Add Policy** button to start the Access Control Wizard.

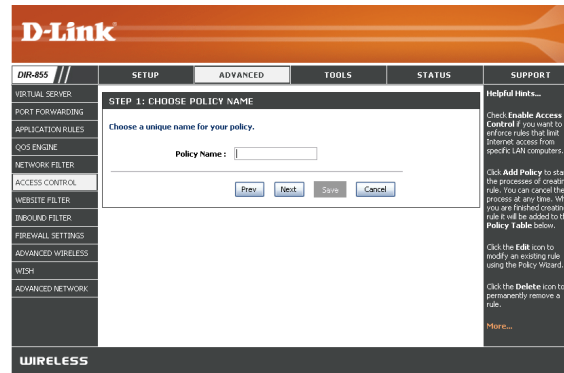


## Access Control Wizard

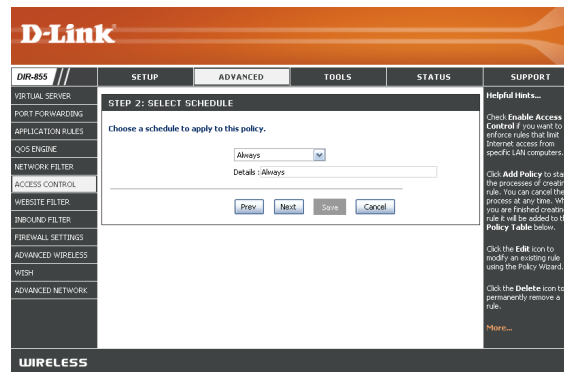
Click **Next** to continue with the wizard.



Enter a name for the policy and then click **Next** to continue.

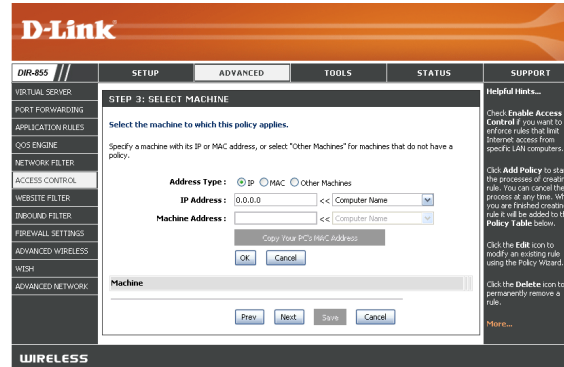


Select a schedule (I.E. Always) from the drop-down menu and then click **Next** to continue.

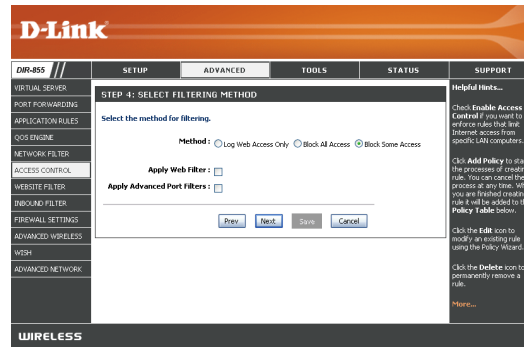


Enter the following information and then click **Next** to continue.

- **Address Type** - Select IP address, MAC address, or Other Machines.
- **IP Address** - Enter the IP address of the computer you want to apply the rule to.



Select the filtering method and then click **Next** to continue.



Enter the rule:

**Enable** - Check to enable the rule.

**Name** - Enter a name for your rule.

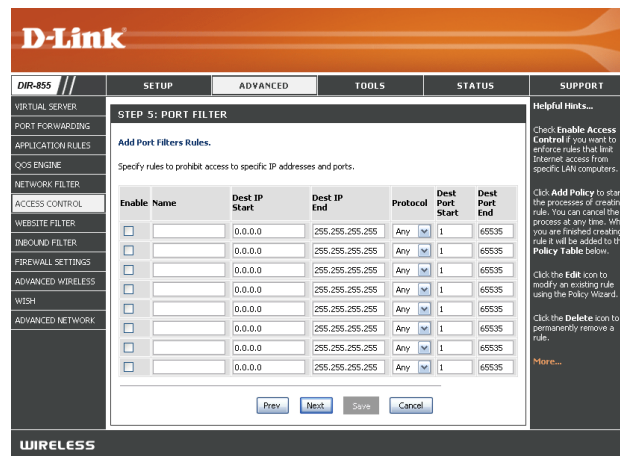
**Dest IP Start** - Enter the starting IP address.

**Dest IP End** - Enter the ending IP address.

**Protocol** - Select the protocol.

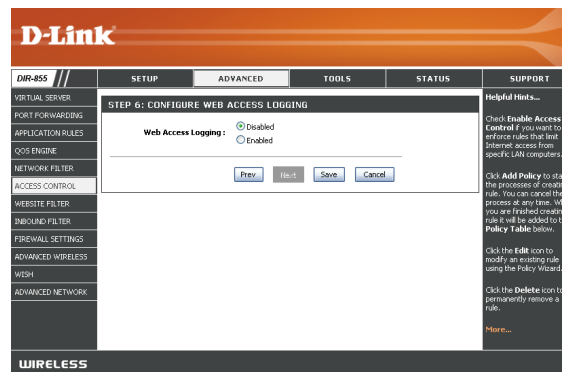
**Dest Port Start** - Enter the starting port number.

**Dest Port End** - Enter the ending port number.



To enable web logging, click **Enable**.

Click **Save** to save the access control rule.





# Website Filters

Website Filters are used to allow you to set up a list of allowed Web sites that can be used by multiple users through the network. To use this feature select to **Allow** or **Deny**, enter the domain or website and click **Save Settings**. You must also select **Apply Web Filter** under the *Access Control* section (page 40).

**Add Website Filtering Rule:** Select **Allow** or **Deny**.

**Website URL/ Domain:** Enter the keywords or URLs that you want to allow or block. Click **Save Settings**.

The screenshot displays the D-Link DIR-855 web interface. The top navigation bar includes the D-Link logo and tabs for SETUP, ADVANCED, TOOLS, STATUS, and SUPPORT. The left sidebar lists various configuration sections, with ACCESS CONTROL selected. The main content area is titled 'WEBSITE FILTER' and contains the following elements:

- WEBSITE FILTER** (Section Header)
- Text: "The Website Filter option allows you to set up a list of Web sites you would like to allow or deny through your network. To use this feature, you must also select the 'Apply Web Filter' checkbox in the Access Control section."
- Buttons: "Save Settings" and "Don't Save Settings"
- 64 -- WEBSITE FILTERING RULES** (Section Header)
- Text: "Configure Website Filter below:"
- Dropdown menu: "DENY computers access to ONLY these sites"
- Button: "Clear the list below..."
- Table with 2 columns: "Website URL/Domain"

The right sidebar contains "Helpful Hints..." and "More..." sections, providing additional information and links.

# Inbound Filters

The Inbound Filter option is an advanced method of controlling data received from the Internet. With this feature you can configure inbound data filtering rules that control data based on an IP address range. Inbound Filters can be used with Virtual Server, Port Forwarding, or Remote Administration features.

**Name:** Enter a name for the inbound filter rule.

**Action:** Select **Allow** or **Deny**.

**Enable:** Check to enable rule.

**Remote IP Start:** Enter the starting IP address. Enter 0.0.0.0 if you do not want to specify an IP range.

**Remote IP End:** Enter the ending IP address. Enter 255.255.255.255 if you do not want to specify an IP range.

**Add:** Click the **Add** button to apply your settings. You must click **Save Settings** at the top to save the settings.

**Inbound Filter Rules List:** This section will list any rules that are created. You may click the **Edit** icon to change the settings or enable/disable the rule, or click the **Delete** icon to remove the rule.

**Helpful Hints...**

Give each rule a **Name** that is meaningful to you.

Each rule can either **Allow** or **Deny** access from the WAN.

Up to eight ranges of WAN IP addresses can be controlled by each rule. The checkbox by each IP range can be used to disable ranges already defined.

The starting and ending IP addresses are WAN-side address.

Click the **Add** or **Update** button to store a finished rule in the Rules List below.

Click the **Edit** icon in the Rules List to change a rule.

Click the **Delete** icon in the Rules List to permanently remove a rule.

**More...**

# Firewall Settings

A firewall protects your network from the outside world. The DIR-855 offers a firewall type functionality. The SPI feature helps prevent cyber attacks. Sometimes you may want a computer exposed to the outside world for certain types of applications. If you choose to expose a computer, you can enable DMZ. DMZ is short for Demilitarized Zone. This option will expose the chosen computer completely to the outside world.

**Enable SPI:** SPI (Stateful Packet Inspection, also known as dynamic packet filtering) helps to prevent cyber attacks by tracking more state per session. It validates that the traffic passing through the session conforms to the protocol.

**NAT Endpoint Filtering:** Select one of the following for TCP and UDP ports:  
**Endpoint Independent** - Any incoming traffic sent to an open port will be forwarded to the application that opened the port. The port will close if idle for 5 minutes.

**Address Restricted** - Incoming traffic must match the IP address of the outgoing connection.

**Address + Port Restriction** - Incoming traffic must match the IP address and port of the outgoing connection.

**Anti-Spoof Check:** Enable this feature to protect your network from certain kinds of “spoofing” attacks.

**Enable DMZ:** If an application has trouble working from behind the router, you can expose one computer to the Internet and run the application on that computer.

**Note:** *Placing a computer in the DMZ may expose that computer to a variety of security risks. Use of this option is only recommended as a last resort.*

**DMZ IP Address:** Specify the IP address of the computer on the LAN that you want to have unrestricted Internet communication. If this computer obtains its IP address automatically using DHCP, be sure to make a static reservation on the **Basic > DHCP** page so that the IP address of the DMZ machine does not change.

The screenshot displays the D-Link DIR-855 web interface for Firewall Settings. The interface is organized into several sections:

- Navigation:** A top bar with 'D-Link' logo and a menu with 'DIR-855', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. A left sidebar lists various configuration categories like 'VIRTUAL SERVER', 'PORT FORWARDING', 'APPLICATION RULES', etc.
- FIREWALL SETTINGS:** A summary box stating 'The Firewall Settings allow you to set a single computer on your network outside of the router.' with 'Save Settings' and 'Don't Save Settings' buttons.
- FIREWALL SETTINGS:** A section with 'Enable SPI' checked.
- NAT ENDPOINT FILTERING:** Two sections for 'UDP Endpoint Filtering' and 'TCP Endpoint Filtering'. Each has three radio button options: 'Endpoint Independent', 'Address Restricted', and 'Port And Address Restricted'. 'Port And Address Restricted' is selected for both.
- ANTI-SPOOF CHECKING:** A section with 'Enable anti-spoof checking' unchecked.
- DMZ HOST:** A section with a note about DMZ risks and 'Enable DMZ' unchecked. It includes a 'DMZ IP Address' field set to '0.0.0.0' and a 'Computer Name' dropdown menu.
- APPLICATION LEVEL GATEWAY (ALG) CONFIGURATION:** A section with four checked options: 'PPTP', 'IPSec (VPN)', 'RTSP', and 'SIP'.
- Helpful Hints...:** A sidebar on the right providing additional information about the DMZ option, stating it should be used as a last resort.

## Application Level Gateway Configuration

Here you can enable or disable ALG's. Some protocols and applications require special handling of the IP payload to make them work with network address translation (NAT). Each ALG provides special handling for a specific protocol or application. A number of ALGs for common applications are enabled by default.

**PPTP:** Allows multiple machines on the LAN to connect to their corporate network using PPTP protocol.

**IPSEC (VPN):** Allows multiple VPN clients to connect to their corporate network using IPsec. Some VPN clients support traversal of IPsec through NAT. This ALG may interfere with the operation of such VPN clients. If you are having trouble connecting with your corporate network, try turning this ALG off. Please check with the system administrator of your corporate network whether your VPN client supports NAT traversal.

**RTSP:** Allows application that uses Real Time Streaming Protocol to receive streaming media from the Internet. QuickTime and Real Player are some of the common applications using this protocol.

**SIP:** Allows devices and applications using VoIP (Voice over IP) to communicate across NAT. Some VoIP applications and devices have the ability to discover NAT devices and work around them. This ALG may interfere with the operation of such devices. If you are having trouble making VoIP calls, try turning this ALG off.