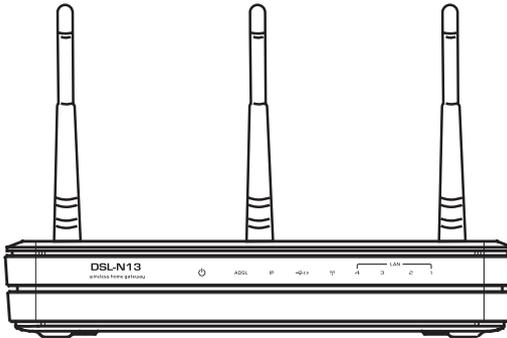




DSL-N13 Wireless ADSL 2/2+ Modem Router



User Manual

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Package contents

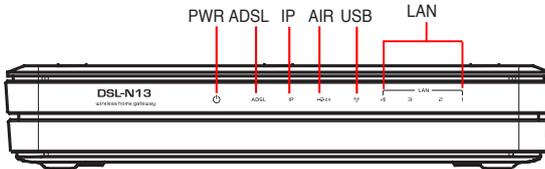
- DSL-N13 Wireless ADSL2/2+ Modem Router
- AC power adapter (type varies by region)
- Category 5 (Cat. 5) Ethernet cable
- Telephone cable
- Splitter (type varies by region)
- Support CD (with electronic user manual included)
- Quick Start Guide



Hardware overview

Front panel

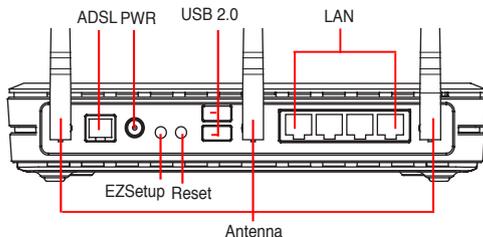
The DSL-N13 Wireless ADSL2/2+ Modem Router front panel contains LED indicators which shows the status of DSL-N13.



Label	Activity	Description
PWR (Power)	ON	Power ON
	OFF	No power
	Blink	Restoring to factory default
ADSL	ON (Green)	ADSL link up
	Blink (Green)	ADSL training
	ON (Red)	ADSL link down
	OFF	ADSL is down
IP	ON (Green)	ADSL is up and the link is PPP
	ON (Red)	ADSL is up, but the link is not PPP
	OFF	ADSL is down
USB 2.0	ON	USB device detected
	OFF	No USB device detected
AIR	ON	Wireless LAN ready
	Blink	Transmitting or receiving data through wireless
	OFF	No power or wireless LAN not ready
LAN 1-4	ON	Physically connected to an Ethernet device
	Blink	Transmitting or receiving data through Ethernet cable
	OFF	No power or no physical connection



Rear panel



Viewed from left to right, the rear panel of DSL-N13 contains the following elements:

- ADSL port
- Power connector
- Power switch
- Four Local Area Network (LAN) ports
- USB 2.0 ports
- EZSetup button
- Reset button
- SMA antenna connector

Product features

The DSL-N13 Wireless ADSL 2/ 2+ Modem Router provides the following features:

- Built-in ADSL modem
- Built-in firewall
- IEEE802.11n standard-based wireless network, backward compatible with 802.11b/g devices
- Easy-to-use Web-based configuration interface: Quick Setup for ADSL connection, wireless, and security configuration
- EZSetup™ utility for ADSL connection, wireless network and security quick setup



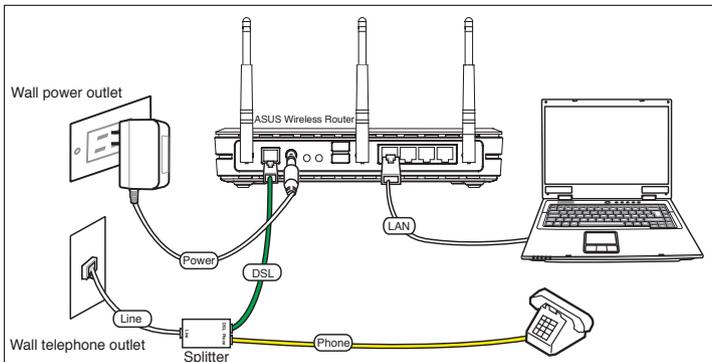
Hardware connections

ADSL connection

Use the ADSL splitter supplied in the package to split ADSL signal and telephone service. Connect your ASUS DSL-N13 Wireless ADSL2/2+ Modem Router to the DSL port of the splitter with the telephone cable supplied in the package. Use another telephone cable to connect your telephone to the Phone port of the ADSL splitter.

Ethernet connection

Use Category 5 (CAT5) Ethernet cable to build up your wired LAN connections. The ASUS DSL-N13 Wireless ADSL2/ 2+ Modem Router is a Fast Ethernet device that provides 100Mbps network connection. To ensure the connection quality, use CAT5 Ethernet cable to connect your network devices, such as desktop computers and network printers.



Wireless connection

To access Internet via wireless connection, you need to install an IEEE802.11b/g wireless adapter on your computer, such as ASUS WL-167g, WL-100gE, WL-100gD, WL-169gE, WL-106gM, WL-160N, and USB-N11.



Connecting to the Internet

Before start

Before start, you need to:

- make sure the cable connections are correct and DSL-N13 is powered ON;
- acquire an active Internet service, such as an ADSL account.



We recommend using wired connection for initial configuration, which may help avoid possible setup problems due to wireless instability. Use a CAT5 cable to connect an Ethernet-enabled computer to a LAN port of DSL-N13.

Preparing your WAN

Depending on your ISP's requirements, you may need to acquire some of the information listed below for setting up Internet connection on DSL-N13.

- Virtual Path Identifier (VPI)
- Virtual Channel Identifier (VCI)
- Host name
- Domain name
- ISP login user name and password
- ISP Domain Name System (DNS) server address
- Static IP address

Preparing your LAN

To use the DSL-N13 Wireless ADSL2/2+ Modem Router on your network, you need to install a network interface card (NIC) or an IEEE802.11b/g wireless network card to your computer.

LAN configuration requirement

For initial configuration, we recommend you to connect a computer to one of the LAN port of DSL-N13 and configure the TCP/IP settings of your computer. The default IP settings of DSL-N13 are:

IP address: 192.168.1.1

Subnet mask: 255.255.255.0

DHCP server: enabled

To access DSL-N13, you must set your computer in the same subnet with the ADSL router. You can make the computer accept a dynamic IP address assigned by the DHCP server of DSL-N13, or manually set up IP address for your computer.



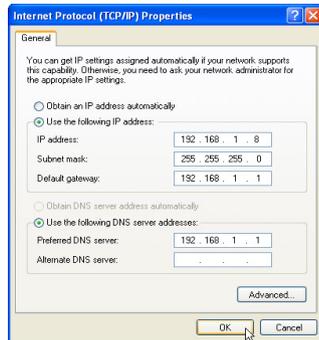
Getting dynamic IP address

Open **Control Panel** -> **Local Area Network Connection**, double-click **Local Connection** icon, then double-click **Internet Protocol (TCP/IP)**. Select **Obtain an IP address automatically** and **Obtain DNS server address automatically**, then click **OK**.

Assigning IP address manually

Open **Control Panel** -> **Local Area Network Connection**, double-click **Local Connection** icon, then double-click **Internet Protocol (TCP/IP)**. Follow the descriptions below to setup the TCP/IP on your computer.

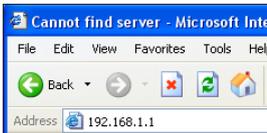
- IP address: 192.168.1.xxx (xxx can be any number between 2 and 254, make sure the IP address is not used by other device)
- Subnet Mask: 255.255.255.0
- Gateway: 192.168.1.1
- DNS: 192.168.1.1



Login the Web configuration interface

To change the ADSL and wireless settings, you need to login to the Web configuration interface.

1. Type 192.168.1.1 (default IP address of DSL-N13) into the address box of the Web browser and press **Enter**.
2. A login window appears. The default username is **admin**, password is **admin** (in lower case).



3. When logged in, you can see the home page of DSL-N13 Web configuration interface. To setup the router, refer to Quick Setup in the next section. To setup the advanced functions, refer to the following chapters for detailed information.





Quick setup

Log onto the DSL-N13 configuration page

1. Type **192.168.1.1** into the address box of your Web browser and press Enter.
2. A login window appears for user name and password. The default username is **admin**, password is **admin** (in lower case).
3. After logging in, you can see the DSL-N13 configuration page.

ADSL setup

1. By default, the **Quick Setup** page pops up. The Quick Setup Wizard automatically detects your ADSL connection type.

Quick Setup - Auto Detection

ADSL Link Up! Start to Detect your connection type

Please wait...

2. If ADSL connection is detected, the next page shows your ISP connection type.



If your ADSL connection is not detected, click **Manual Setting** to manually set up DSL-N13. Refer to Page 11-13 for manual setting instruction.

-- If your connection type is PPPoE or PPPoA

For **dynamic IP** users, input your user name and password then click **Next**.

For **static IP** users, check **Use Static IP Address**, input your IP address, then click **Next**.

Click **Next** to save the ADSL information to DSL-N13.

Quick Setup - Detection Result

WL-600g has detected that your connection type is "PPPoE"

If yes, please key in your username/password and push "Next" button to setup other function!
If not, please push "Manual Setting" button to setup WAN connection manually

PPP Username:

PPP Password:

Use Static IP Address

IP Address:



If your actual connection is not PPPoE or PPPoA, click **Manual Setting** to manually set up DSL-N13. Refer to Page 11-13 for manual setting instruction.



-- If your connection type is MER (DHCP)

Click **Next** if your connection type is MER (DHCP).



If your actual connection is not MER(DHCP), click **Manual Setting** to manually set up DSL-N13. Refer to Page 11-13 for manual setting instruction.

Quick Setup - Detection Result

WL-600g has detected that your connection type is 'DHCP (Dynamic IP)'

If yes, please push "Next" button to setup other function
If not, please push "Manual Setting" button to setup WAN connection manually.

Wireless setup

1. Choose a **Security Level**. For detailed security information, refer to Page 21-22.

Wireless -- Setup

Network Name (SSID):

Security Level:

2. Input a key in the **Key** field. The number of digit for the key depends on the security level you choose.

Wireless -- Setup

Network Name (SSID):

Security Level:

Key:

Microsoft Internet Explorer

WEP-64bits Key should be 5 ASCII character or 10 hexadecimal digits for 64-bit encryption keys.

3. The summary page then shows up. If the information displayed is correct, click **Save/Reboot** to finish the setup. Otherwise, click **Back** to modify the settings.

WAN Setup - Summary

Make sure that the settings below match the settings provided by your ISP.

VPI / VCI:	8 / 81
Connection Type:	PPPoE
Service Name:	pppoe_0_81_1
IP Address:	Automatically Assigned
SSID:	Default
Authentication:	None

Click "Save/Reboot" to save these settings and reboot router. Click "Back" to make any modifications.
NOTE: The configuration process takes about 1 minute to complete and your DSL Router will reboot.

4. Setup complete! Wait for about 60 seconds to reboot. The Web page will refresh to show device information after reboot.



Manual Setup

If you encounter difficulty when configuring your ADSL connection with Quick Setup, click **Manual Setting** to manually set up your DSL-N13.

Quick Setup - Auto Detection

ADSL Link Down! Please check your telephone line connection...



ADSL Setup

1. Select your **Country** and **ISP** and click **Next**.

Quick Setup.

This Quick Setup will guide you through the steps necessary to configure your DSL Router.

ATM PVC Configuration

Select the check box below to use ASUS PVC DataBase.

Country: UK

ISP: NETHERLANDS
 ITALY
 TAIWAN
 TURKEY
 UK
 Not List

2. If your country and ISP are not on the list, select **Not list**, key in your VPI and VCI values and click **Next**. You may ask your ISP for VPI/VCI values.

Quick Setup

This Quick Setup will guide you through the steps necessary to configure your DSL Router.

ATM PVC Configuration

Select the check box below to use ASUS PVC DataBase.

Country: Not List

ISP: Not List

The Virtual Path Identifier (VPI) and Virtual Channel Identifier (VCI) are needed for setting up the ATM PVC. Do not change VPI and VCI numbers unless your ISP instructs you otherwise.

VPI: [0-255]

VCI: [32-65535]



3. Select your connection type and click **Next**. You can get the connection type from your ISP.

Connection Type

Select the type of network protocol and encapsulation mode over the ATM PVC that your ISP has instructed you to use. Note that 802.1q VLAN tagging is only available for PPPoE, MER and Bridging.

PPP over ATM (PPPoA)

PPP over Ethernet (PPPoE)

MAC Encapsulation Routing (MER)

IP over ATM (IPoA)

Bridging

Encapsulation Mode

LLC/SHAP-BRIDGING

Enable 802.1q

VLAN ID[0-4095]

-- If your connection type is PPPoA or PPPoE

For **dynamic IP** users, input your PPP user name, password, and service name then click **Next**.

For **static IP** users, check **Use Static IP Address** then key in your IP address, then click **Next**.

PPP Username and Password

PPP usually requires that you have a user name and password to establish your connection. In the boxes below, enter the user name and password that your ISP has provided to you.

PPP Username:

PPP Password:

PPPoE Service Name:

Authentication Method:

Dial on demand (with idle timeout timer)

PPP IP extension

Use Static IP Address



-- If your connection type is MER

For **dynamic IP** users, check **Obtain an IP address automatically**, **Obtain default gateway automatically**, and **Obtain DNS server address automatically**, then click **Next**.

For **static IP** users, check **Use the following IP Address**, **Use the following default gateway**, and **Use the following DNS server address**, then input the addresses in correspondent fields.

WAN IP Settings

Enter information provided to you by your ISP to configure the WAN IP settings.
 Notice: DHCP can be enabled for PVC in MER mode if "Obtain an IP address automatically" is chosen. Changing the default gateway or the DNS effects the whole system. Configuring them with static values will disable the automatic assignment from DHCP or other WAN connection.
 If you configure static default gateway over this PVC in MER mode, you must enter the IP address of the remote gateway in the "Use IP address". The "Use WAN interface" is optional.

Obtain an IP address automatically
 Use the following IP address:
 WAN IP Address:
 WAN Subnet Mask:

Obtain default gateway automatically
 Use the following default gateway:
 Use IP Address:
 Use WAN Interface:

Obtain DNS server addresses automatically
 Use the following DNS server addresses:
 Primary DNS server:
 Secondary DNS server:

-- If your connection type is IPoA

Static IP user only. Input the WAN IP address assigned by your ISP, then click **Next**.

WAN IP Settings

Enter information provided to you by your ISP to configure the WAN IP settings.
 Notice: DHCP is not supported in IPoA mode. Changing the default gateway or the DNS effects the whole system. Configuring them with static values will disable the automatic assignment from other WAN connection.

WAN IP Address:
 WAN Subnet Mask:

Use the following default gateway:
 Use IP Address:
 Use WAN Interface:

Use the following DNS server addresses:
 Primary DNS server:
 Secondary DNS server:



Wireless Setup

1. Designate an SSID (network name) for DSL-N13. Choose the security level then input a key. The number of digit of your key depends on the security level you choose. Refer to the note on the web page. When finished, click **Next**.

Wireless -- Setup

Network Name (SSID):

Security Level:

Key:

Note: WEP-64bits Key should be 5 ASCII characters or 10 hexadecimal digits for 64-bit encryption keys.

2. This page provides a summary of DSL-N13 WAN and wireless configuration. Click **Save/Reboot** to save and activate your configuration.

WAN Setup - Summary

Make sure that the settings below match the settings provided by your ISP.

VPI / VCI:	0 / 35
Connection Type:	PPPoE
Service Name:	pppoe_0_35_1
IP Address:	Automatically Assigned
SSID:	Default
Authentication:	None

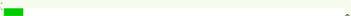
Click "Save/Reboot" to save these settings and reboot router. Click "Back" to make any modifications.
NOTE: The configuration process takes about 1 minute to complete and your DSL Router will reboot.

3. Setup complete! DSL-N13 reboots in about 50 seconds. The green bar shows the current rebooting status. After reboot, the web page will automatically refresh to display the settings.

DSL Router Reboot

The DSL Router has been configured and is rebooting.

Close the DSL Router Configuration window and wait for 50 seconds before reopening your web browser. If necessary, reconfigure your PC's IP address to match your new configuration.

Current Status:  5%



EZSetup

ASUS DSL-N13 Wireless ADSL2/2+ Modem Router provides an easy-to-use setup utility -- EZSetup. With this utility, you can setup your Internet connection, wireless LAN with just several clicks.

Installing ASUS utility

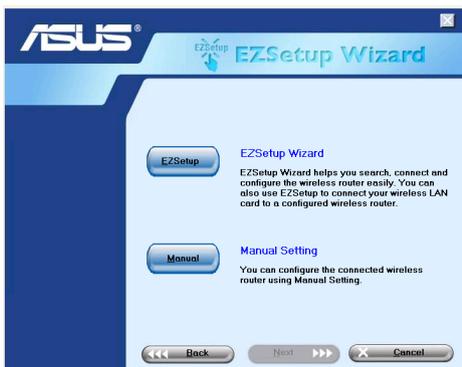
To use ASUS EZSetup for DSL-N13 configuration, you must install the ASUS utilities from the support CD included in your package. Insert the CD into your optical drive and autorun the installation program. If autorun is disabled on your computer, double-click **SETUP.EXE** in the root directory of the CD.

Setup DSL-N13 using EZSetup

1. Before using this utility, make sure that your hardware connections are all set. Click **Start -> Program -> ASUS Utility -> DSL-N13 Wireless Router -> EZSetup Wizard** to start EZSetup. Click **Next**.

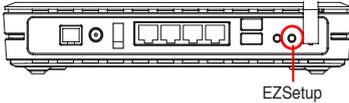


2. Click **EZSetup**.

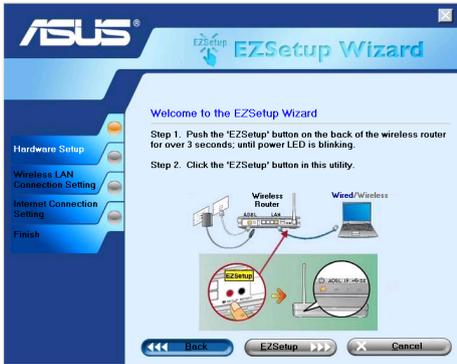




3. Push the red EZSetup button on the rear panel of DSL-N13 for over 3 seconds until the PWR LED is blinking.



4. Click **EZSetup** button.

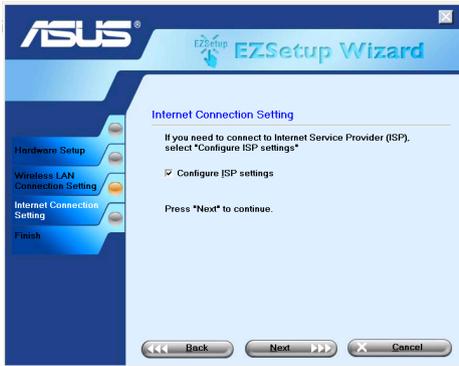


5. The system generates the SSID and Network key automatically. The network key is a 128-bit WEP key by default. You can accept the settings, or assign SSID and keys to your own need. Click **Next** to save the wireless settings.

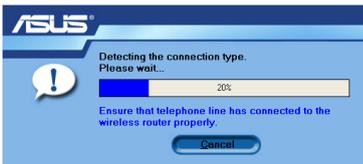




6. Next, EZSetup will guide you to complete the Internet connection settings. Check **Configure ISP settings** then click **Next** to continue.

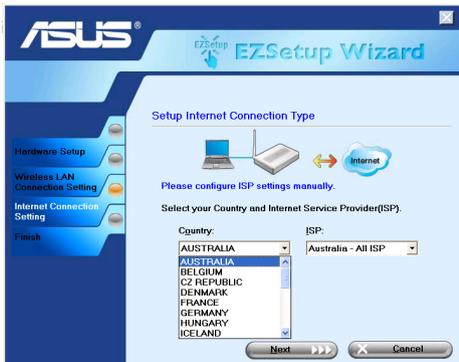


7. The system detects your Internet connection type. The progress may take several seconds.



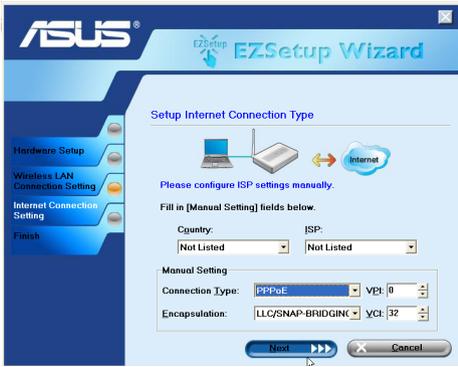
If your ADSL connection is successfully detected by DSL-N13, skip to Step 8. If your ADSL connection can not be detected, you need follow Step 8 and manually set up your ADSL connection.

8. Select your country and ISP then click **Next**.





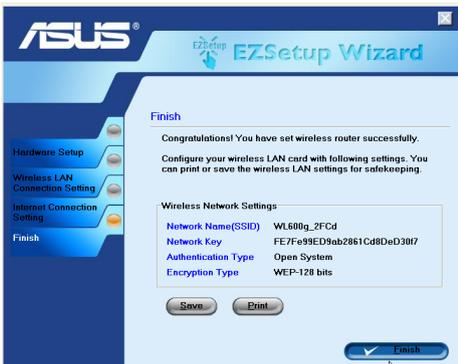
If your country or ISP are not on the list, select **Not listed** for both country and ISP fields. Then select **Connection type** and fill in VPI and VCI. You can get VPI/VCI values from your ISP.



9. Input your ISP account User name and Password then click **Next**.



10. Setup complete! This page shows the wireless network setting parameters. You can either save it or print it out for future reference. Click **Finish** to quit EZSetup.





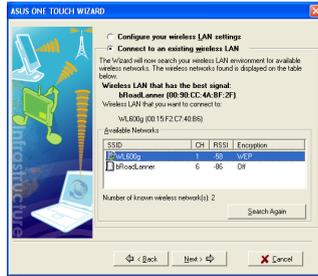
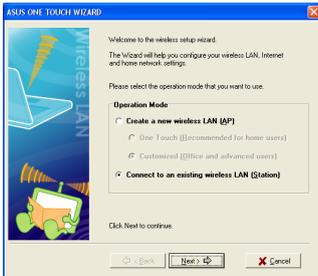
Connecting DSL-N13 with ASUS WLAN Card

Configuring ASUS WLAN Card with One Touch Wizard™

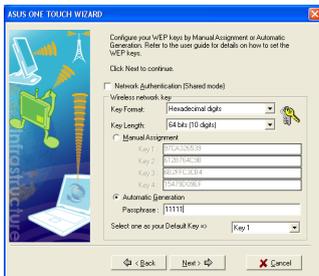
If you have installed ASUS wireless card together with its utilities and drives on your PC, click **Start -> Programes -> ASUS Utility-> WLAN Card -> One Touch Wizard** to launch the One Touch Wizard utility.



1. Select **Connect to an existing wireless LAN (Station)** radio button and click **Next to continue.**
2. One Touch Wizard searches and displays the available APs in the **Available Networks** list. Select DSL-N13 and press **Next to continue.**

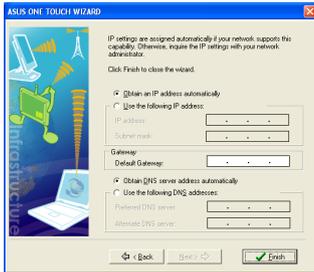


3. Set the authentication and encryption of your WLAN card the same with those at DSL-N13. Click **Next to continue.**
4. It takes several seconds for the wireless card to associate with DSL-N13. Press **Next to setup TCP/IP.**





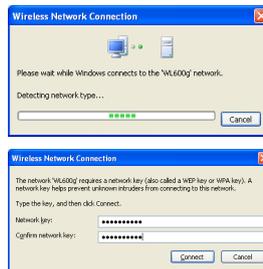
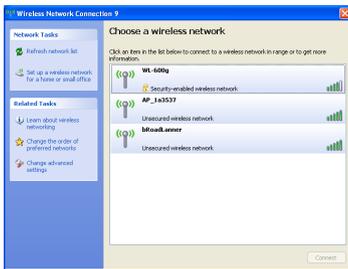
5. Setup the IP address of the WLAN Card according to your network condition. After the setup is complete, click **Finish** to exit the **One Touch Wizard**.



Configuring WLAN card with Windows® WZC service

You can also use Windows® Wireless Zero Configuration service to set up the wireless connection with DSL-N13.

1. Double-click the wireless network icon on the task bar to view available networks. Select your wireless router and click **Connect**.
2. Input the key you have set on the DSL-N13 and click **Connect**. The connection is complete within several seconds.





Wireless settings

This chapter describes how to configure other wireless features of your ASUS DSL-N13 ADSL Wireless Router.

Setting up SSID

SSID stands for Service Set Identifier, also known as the name of a wireless network. To connect a wireless router, or to form a wireless bridge system, all wireless routers or APs or clients must have the same SSID. To setup SSID:

1. Click **Wireless -> Basic** in the left side menu to open the configuration page.

Wireless -- Basic

This page allows you to configure basic features of the wireless LAN interface. You can enable or disable the wireless LAN interface, hide the network from active scans, set the wireless network name (also known as SSID) and restrict the channel set based on country requirements.
Click "Apply" to configure the basic wireless options.

Enable Wireless

Hide Access Point

SSID:

BSSID: 02:10:18:01:00:01

2. Select **Enable Wireless** checkbox.
3. You can hide DSL-N13 from wireless scanning by selecting **Hide Access Point**, but wireless clients still can connect to DSL-N13 by specifying correct SSID.
4. Define the SSID for DSL-N13. The default SSID is **Default**.
5. Press **Save/Apply** to save and activate the settings.

Setting up wireless security

To protect your wireless network, you need to setup a security mechanism at both DSL-N13 and the wireless clients.

Network authentication

Network authentication uses certain types of mechanism to identify authenticated wireless clients. DSL-N13 supports the following authentication methods:

- Open:** This option disables authentication protection for your wireless network. Under the Open mode, any IEEE802.11b/g wireless client can connect to your wireless network.
- Shared:** Shared means using the same WEP keys for authentication and encryption.
- 802.1X:** 802.1X uses RADIUS (Remote Access Dial-Up User Service) server to authenticate wireless clients with a user name and password. It can authenticate user with different levels of access right.



WPA: WPA stands for WiFi-Protected Access. WPA provides two security modes for Home/SOHO user and enterprise network. The former solution adopts Pre-Shared Key for authentication, and the later uses the existing 802.1X RADIUS server in the enterprise network to process the authentication requests.

WPA - PSK: WPA-PSK (Pre-Shared Key) is the solution for home and SOHO users who have no 802.11X authentication server within the LAN. To setup WPA-PSK, you need to input a passphrase and let the system generate the key. Combination of letters, numbers and non-alphanumeric characters is recommended for ensuring security.

Encryption

Encryption is used to convert plain text data into unreadable codes with certain type of algorithm before encapsulation for wireless transmission. DSL-N13 supports the following encryption methods:

WEP: WEP stands for Wired Equivalent Privacy. It uses 64 or 128-bit static keys. You can let the system generate the WEP keys by inputting a Passphrase.

TKIP: Temporal Key Integrity Protocol (TKIP) dynamically generates unique keys to encrypt every data packet in a wireless session.

AES: Advanced Encryption Standard (AES) is a dependable encryption adopted in WPA2 or IEEE802.11i standard. It offers stronger protection and greatly increases the complexity of wireless encryption.

TKIP + AES: For a network where WPA clients (using TKIP encryption) and WPA2 clients (using AES encryption) co-exist. Select this option to enable both.

How to setup wireless security

Open

1. Click **Wireless -> Security** in the left side menu to open the configuration page.
2. Select **Open** in the **Network Authentication** field to disable authentication mechanism.

Wireless -- Security

This page allows you to configure security features of the wireless LAN interface. You can set the network authentication method, selecting data encryption, specify whether a network key is required to authenticate to this wireless network and specify the encryption strength. Click "Save/Apply" to configure the wireless security options.

Network Authentication:

WEP Encryption:



3. Select **Enable** in the **WEP Encryption** field to use WEP keys for data encryptions. Select 64-bit or 128-bit **Encryption Strength** for key length then click **Set Encryption Keys** button to setup the keys. If you do not want to encrypt data, select **Disable** in **WEP Encryption** and skip to Step 5.
4. After you click the **Set Encryption Keys** button, you are directed to another page to setup the keys. You can select **Enable ASUS Passphrase** and input a passphrase in the first box below, the system automatically generates four network keys for you. You can also disable ASUS Passphrase and input four keys manually. Record the passphrase (if any) and keys in your note.

Wireless Settings -- Encryption Keys

Enable ASUS PassPhrase

Key in any word in Passphrase, then WL-600g will generate the correct network keys.

Passphrase:

Network Key 1:

Network Key 2:

Network Key 3:

Network Key 4:

Current Network Key:

5. Press **Save/Apply** to save and activate the settings.

Shared

1. Click **Wireless -> Security** in the left side menu to open the configuration page.
2. Select **Shared** in the **Network Authentication** field to use WEP authentication.

Wireless -- Security

This page allows you to configure security features of the wireless LAN interface. You can set the network authentication method, selecting data encryption, specify whether a network key is required to authenticate to this wireless network and specify the encryption strength.
Click "Save/Apply" to configure the wireless security options.

Network Authentication:

WEP Encryption:

Encryption Strength:

3. The WEP Encryption is fixed to **Enabled** because Shared mode use the same WEP keys for both encryption and authentication.
4. Select 64-bit or 128-bit **Encryption Strength** for key length then click **Set Encryption Keys** button to setup the keys. Refer to **Open** mode Step 4 for key configuration.
5. Press **Save/Apply** to save and activate the settings.



802.1X

1. Click **Wireless -> Security** in the left side menu to open the configuration page.
2. Select **802.1X** in the **Network Authentication** field to enable authentication using RADIUS server in your network.

Wireless -- Security

This page allows you to configure security features of the wireless LAN interface. You can set the network authentication method, selecting data encryption, specify whether a network key is required to authenticate to this wireless network and specify the encryption strength. Click "Save/Apply" to configure the wireless security options.

Network Authentication: **802.1X**

RADIUS Server IP Address: 0.0.0.0
RADIUS Port: 1812
RADIUS Key:

WEP Encryption: **Enabled**

Encryption Strength: **128-bit**

3. Input the **RADIUS Server IP address**, **RADIUS port** (the default value is 1812), and **RADIUS Key**.
4. You can choose to enable or disable data encryption. If you want to encrypt data, select **Enable** in the **WEP Encryption** field, select 64-bit or 128-bit **Encryption Strength** for key length. Click **Set Encryption Keys** button to setup the keys.
5. Refer to **Open mode Step 4** for key configuration.
6. Press **Save/Apply** to save and activate the settings.

WPA

1. Click **Wireless -> Security** in the left side menu to open the configuration page.
2. Select **WPA** in the **Network Authentication** field to enable RADIUS server authentication and advanced encryption methods.

Wireless -- Security

This page allows you to configure security features of the wireless LAN interface. You can set the network authentication method, selecting data encryption, specify whether a network key is required to authenticate to this wireless network and specify the encryption strength. Click "Save/Apply" to configure the wireless security options.

Network Authentication: **WPA**

WPA2 Preauthentication: **Disabled**

Network Re-auth Interval: 36000

WPA Group Rekey Interval: 0

RADIUS Server IP Address: 0.0.0.0
RADIUS Port: 1812
RADIUS Key:

WPA Encryption: **TKIP+AES**

WEP Encryption: **Disabled**



3. Set the **WPA2 Preauthentication** to **Enabled** if you want to use this function.
4. The **Network Re-auth Interval** is 36000 seconds by default, you can setup this value according to your network environment.
5. Set up RADIUS server information by inputting WPA Group Rekey Interval, RADIUS server IP address, RADIUS port and RADIUS Key.
6. Set up WPA encryption methods. If there are only WPA2 clients within your network, select AES, if WPA clients only, select TKIP; if both exist, select TKIP+AES.
7. You can also enable WEP client to access your wireless network. To enable WEP clients, set **WEP Encryption** to **Enabled**. Select 64-bit or 128-bit **Encryption Strength** for key length then click **Set Encryption Keys** button to setup the keys. Refer to **Open** mode Step 4 for key configuration.
8. Press **Save/Apply** to save and activate the settings.

WPA-PSK

1. Click **Wireless -> Security** in the left side menu to open the configuration page.
2. Select **WPA-PSK** in the **Network Authentication** field.

Wireless - Security

This page allows you to configure security features of the wireless LAN interface. You can set the network authentication method, selecting data encryption, specify whether a network key is required to authenticate to this wireless network and specify the encryption strength.
Click "Save/Apply" to configure the wireless security options.

Network Authentication:

WPA Pre-Shared Key: [Click here to display](#)

WPA Group Rekey Interval:

WPA Encryption:

3. Input the WPA Pre-Shared Key. The key is masked by system. To check the key, press **Save/Apply** and wait until the page refreshes. Then click **Click here to display** link, you can see the key displayed in a separate window.
4. Setup the WPA Group Rekey Interval.
5. Set up WPA encryption methods. If there are only WPA2 clients within your network, select AES, if WPA clients only, select TKIP; if both exist, select TKIP+AES.
6. You can also enable WEP client to access your wireless network. To enable WEP clients, set **WEP Encryption** to **Enabled**. Select 64-bit or 128-bit **Encryption Strength** for key length then click **Set Encryption Keys** button to setup the keys. Refer to **Open** mode Step 4 for key configuration.
7. Press **Save/Apply** to save and activate the settings.



MAC filter

You can setup MAC filters to allow or deny wireless clients with known MAC addresses. To setup MAC filter:

1. Click **Wireless -> MAC Filter** in the left side menu to open the configuration page.
2. Select the restriction mode for the filter: select **Allow** to allow the client and deny the rest; select **Deny** to deny the client and allow the rest. By default, the filter is set to **Disable** which allows all clients. Click **Add** to create a filter.



2. Type the MAC address of the wireless client you want to allow or block.
3. Press **Save/Apply** to save and activate the settings.

Wireless bridge

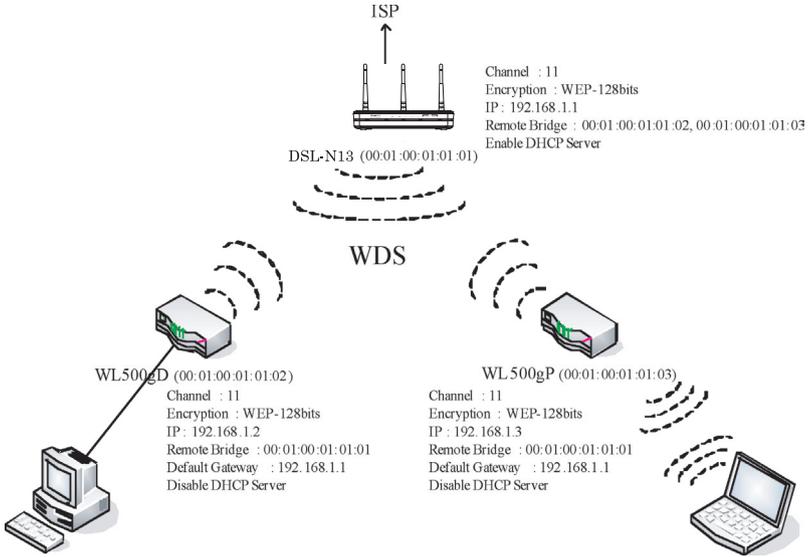
You can connect DSL-N13 to other wireless bridges so as to expand your wireless LAN. This function is also refer to as Wireless Distribution System (WDS).

To setup WDS, the wireless routers must meet the following requirements:

1. Using the same encryption.
2. Working on the same channel.
3. The IP addresses of all wireless bridges are within the same subnet.
4. WDS enabled.
5. For bridging wireless routers, the MAC Addresses of the uplink wireless router must be saved to the **Remote Bridge List**. For uplink wireless router, MAC addresses of all bridging router must be saved.

Example: DSL-N13 (wireless bridge with Internet access), WL-500gP (wireless bridge), and WL-500gD (wireless bridge). Refer to the illustration on the next page.

	DSL-N13	WL-500gD	WL-500gP
SSID	ASUS	ASUS	ASUS
DHCP server	Enabled	Disabled	Disabled
LAN IP address	192.168.1.1	192.168.1.2	192.168.1.3
Authentication	Open	Open	Open
Encryption	WEP-128bit	WEP-128bit	WEP-128bit
Remote bridge	00:01:00:01:01:02 00:01:00:01:01:03	00:01:00:01:01:01	00:01:00:01:01:01
MAC address	00:01:00:01:01:01	00:01:00:01:01:02	00:01:00:01:01:03
Channel	11	11	11



WDS setup (DSL-N13)

1. Setting up encryption

If you want to use encryption function, select a **Network Authentication** mode; if not, select **Disabled**. Click **Wireless -> Security** to open the configuration page.

In this example, set authentication to **Open** and encryption to **Enabled**, select **128bit** for Encryption Strength, then click **Set Encryption Keys**.

Wireless -- Security

This page allows you to configure security features of the wireless LAN interface. You can set the network authentication method, selecting data encryption, specify whether a network key is required to authenticate to this wireless network, and specify the encryption strength.
Click "Save/Apply" to configure the wireless security options.

Network Authentication:

WEP Encryption:

Encryption Strength:



You can check **Enable ASUS PassPhrase** and input a string in **Passphrase** field to let the system generate the Network Keys. You can also disable Passphrase and input four keys manually. When finished, click **Save/Apply**.

Wireless Settings -- Encryption Keys

Enable ASUS PassPhrase

Key in any word in Passphrase, then WL-800g will generate the correct network keys.

Passphrase:

Network Key 1:

Network Key 2:

Network Key 3:

Network Key 4:

Current Network Key:

2. Setting up channel

Click **Wireless -> Advanced**. Set **Channel** to **11** and click **Save/Apply**.

Wireless -- Advanced

This page allows you to configure advanced features of the wireless LAN interface. You can select a particular channel on which to operate, force the transmission rate to a particular speed, set the fragmentation threshold, set the RTS threshold, set the wakeup interval for clients in power-save mode, set the beacon interval for the access point, set XPress mode and set whether short or long preambles are used.
Click "Save/Apply" to configure the advanced wireless options.

AP Isolation:

Band:

Channel:

Rate:

Multicast Rate:

Basic Rate:

Fragmentation Threshold:

RTS Threshold:

DTIM Interval:

Beacon Interval:

XPress(TM) Technology:

54g(TM) Mode:

54g Protection:

WMM(Wi-Fi Multimedia):



3. Setting IP address

Click **Advanced Setup -> LAN**. Set DSL-N13 **IP address** to **192.168.1.1**, select **Enable DHCP Server** and set **Start IP address** to **192.168.1.4**. Click **Save/ Reboot**.

Local Area Network (LAN) Setup

Configure the DSL Router IP Address and Subnet Mask for LAN interface. Save button only saves the LAN configuration data. Save/Reboot button saves the LAN configuration data and reboots the router to make the new configuration effective.

IP Address:

Subnet Mask:

Enable UPnP

Enable IGMP Snooping

Disable DHCP Server

Enable DHCP Server

Start IP Address:

End IP Address:

Leased Time (hour):

4. Setting WDS

Click **Wireless -> Wireless Bridge**. Select **Wireless Bridge**. You can select **Enabled(Scan)** to find WL-500gD and WL-500gP. If the stations are on the list, check the checkbox and click **Save/Apply**.

Wireless -- Bridge

This page allows you to configure wireless bridge features of the wireless LAN interface. You can select Wireless Bridge (also known as Wireless Distribution System) to disable access point functionality. Selecting Access Point enables access point functionality. Wireless bridge functionality will still be available and wireless stations will be able to associate to the AP. Select Disabled in Bridge Restrict which disables wireless bridge restriction. Any wireless bridge will be granted access. Selecting Enabled or Enabled (Scan) enables wireless bridge restriction. Only those bridges selected in Remote Bridges will be granted access. Click "Refresh" to update the remote bridges. Wait for few seconds to update. Click "Save/Apply" to configure the wireless bridge options.

AP Mode:

Bridge Restrict:

Remote Bridges MAC Address:

If you cannot find WL-500gD by scanning, set **Bridge Restrict** to **Enable** and input the MAC address of WL-500gD and WL-500gP manually. When finished, click **Save/Apply**. DSL-N13 WDS setup is complete!

AP Mode:

Bridge Restrict:

Remote Bridges MAC Address:



WDS setup (WL-500gD and WL-500gP)

Set up WL-500gD and WL-500gP according to the table on Page 26.

1. Wireless Setting
 - Set WL-500gD, WL-500gP wireless channel, authentication, encryption and keys the same as DSL-N13.
2. Set IP address to 192.168.1.2 (WL-500gD), 192.168.1.3 (WL-500gP)
3. Disable DHCP Server and set default gateway to 192.168.1.1,
4. WDS Setting
 - Open **Wireless -> Bridge**, set AP Mode to **Hybrid**.
 - Set **Channel** to **11**.
 - Add the MAC address of DSL-N13 to **Remote Bridge List**.
5. Save the settings and reboot.

Wireless advanced settings

Click **Wireless -> Advanced** to configure advanced features of the wireless router such as communication channel, data rate and WMM.



If you do not know the meaning of these items, use the default setting.

Wireless -- Advanced

This page allows you to configure advanced features of the wireless LAN interface. You can select a particular channel on which to operate, force the transmission rate to a particular speed, set the fragmentation threshold, set the RTS threshold, set the wakeup interval for clients in power-save mode, set the beacon interval for the access point, set XPress mode and set whether short or long preambles are used. Click "Save/Apply" to configure the advanced wireless options.

AP Isolation:	Off
Band:	2.4GHz - 802.11g
Channel:	11
Rate:	Auto
Multicast Rate:	Auto
Basic Rate:	Default
Fragmentation Threshold:	2346
RTS Threshold:	2347
DTIM Interval:	1
Beacon Interval:	100
XPress(TM) Technology:	Disabled
54g(TM) Mode:	54g Auto
54g Protection:	Auto
WMM(Wi-Fi Multimedia):	Disabled

Save/Apply



Network security

This chapter shows how to set up security defence for your local area network.

Setting up access right to DSL-N13

To protect your wired and wireless LAN, we recommend setting up access protection so as to prevent DSL-N13 from being viewed or modified by unauthenticated users.

Service restriction

DSL-N13 provides a Service Control List (SCL) that can enable or disable services which are used to access the router configuration interface. You can choose allowing HTTP, ICMP from WAN, or allowing HTTP from LAN. After configuration is complete, click **Save/Apply** to activate the settings.

Access Control -- Services

A Service Control List ("SCL") enables or disables services from being used.

Services	LAN	WAN
HTTP	<input checked="" type="checkbox"/> Enable	<input type="checkbox"/> Enable
ICMP	<input checked="" type="checkbox"/> Enable	<input type="checkbox"/> Enable

IP address restriction

To protect the router from being accessed by unauthenticated user in your LAN, you can restrict the access right to the hosts with certain IP addresses. Click **Management -> Access Control -> IP Addresses** to setup the IP address for the authenticated network supervisors.



Before setting up the IP address restriction, make sure addresses of authenticated hosts are static.

Access Control -- IP Address

The IP Address Access Control mode, if enabled, permits access to local management services from IP addresses contained in the Access Control List. If the Access Control mode is disabled, the system will not validate IP addresses for incoming packets. The services are the system applications listed in the Service Control List

Access Control Mode: Disable Enable



Password protection

DSL-N13 ADSL also provides three levels of access right: admin, support, and user. Account "admin" has full access to change and view configuration of the router, "support" is for ISP technician to view and keep maintenance to the router, "user" can view the router settings and statistics, as well as to update the software.

1. Click **Management -> Access Control -> Passwords** in the left side menu to setup passwords for these accounts.

Access Control -- Passwords

Access to your DSL router is controlled through three user accounts: admin, support, and user.

The user name "admin" has unrestricted access to change and view configuration of your DSL Router.

The user name "support" is used to allow an ISP technician to access your DSL Router for maintenance and to run diagnostics.

The user name "user" can access the DSL Router, view configuration settings and statistics, as well as, update the router's software.

Use the fields below to enter up to 16 characters and click "Apply" to change or create passwords. Note: Password cannot contain a space.

Username:

Old Password:

New Password:

Confirm Password:

2. Select the account username and fill in old password, and new password (twice). Each passwords contains up to 16 characters or digits.
3. Press **Save/Apply** to save and activate the settings.

Setting up port triggering

Some applications such as games, video conferencing, and remote access require specified ports in the firewall to be opened for remote access. You can configure the port settings by selecting an existing application or creating your custom applications.

NAT -- Port Triggering

Some applications such as games, video conferencing, remote access applications and others require that specific ports in the Router's firewall be opened for access by the applications. You can configure the port settings from this screen by selecting an existing application or creating your own (Custom application) and click "Save/Apply" to add it.

Remaining number of entries that can be configured:32

Application Name:

Select an application:

Custom application:

Trigger Port Start	Trigger Port End	Trigger Protocol	Open Port Start	Open Port End	Open Protocol
		TCP			TCP
		TCP			TCP
		TCP			TCP
		TCP			TCP
		TCP			TCP
		TCP			TCP
		TCP			TCP
		TCP			TCP
		TCP			TCP
		TCP			TCP



Setting up DMZ host

The function of DMZ is similar to that of virtual server. The difference between virtual server and DMZ is that DMZ opens all ports to WAN while virtual server opens ports according to the demand of the enabled services. To configure DMZ host:

1. Click **Advanced Setup -> NAT -> DMZ Host** in the left side menu to open the configuration page.
2. Enter the IP address of the host to be setup as DMZ host.
3. Press **Save/Apply** to activate the settings.

NAT -- DMZ Host

The DSL router will forward IP packets from the WAN that do not belong to any of the applications configured in the Virtual Servers table to the DMZ host computer.

Enter the computer's IP address and click "Apply" to activate the DMZ host.

Clear the IP address field and click "Apply" to deactivate the DMZ host.

DMZ Host IP Address:

Allowing SIP request through NAT

NAT checks IP header only and translate the information into private IP address. However, for applications that demand many dynamic ports for session control such as Session Initiation Protocol (SIP), traditional NAT cannot translate the address because lack of preset service ports. To enable such services while at the same time do not sacrifice network security, DSL-N13 introduces Application Layer Gateway (ALG) to allow SIP request going through firewall and NAT from WAN. To configure ALG:

1. Click **Advanced Setup -> NAT -> ALG** in the left side menu to open the configuration page.

ALG

Select the ALG below.

SIP Enabled

2. Select **SIP Enabled** checkbox to allow SIP request, or uncheck to disable.
3. Press **Save/Apply** to save and activate the settings.

Firewall - Outgoing IP filter

By default, all outbound IP traffic is allowed. You can block certain types of IP traffic by setting up filter rules at DSL-N13.

1. Click **Advanced Setup -> Security -> IP Filtering -> Outgoing** in the left side menu to open the configuration page. Click **Add** to create a new rule.



Add IP Filter -- Outgoing

The screen allows you to create a filter rule to identify outgoing IP traffic by specifying a new filter name and at least one condition below. All of the specified conditions in this filter rule must be satisfied for the rule to take effect. Click 'Save/Apply' to save and activate the filter.

Filter Name:

Protocol:

Source IP address:

Source Subnet Mask:

Source Port (port or port.port):

Destination IP address:

Destination Subnet Mask:

Destination Port (port or port.port):

2. Define a **Filter Name** for the filter rule. Specify protocol, source IP address, subnet mask and port (range) and destination IP address, subnet mask and port (range).
3. Press **Save/Apply** to save and activate the settings.

Firewall- Incoming IP filter

By default, all incoming IP traffic is blocked. You can allow certain types of IP traffic by setting up filter rules at DSL-N13.

1. Click **Advanced Setup -> Security -> IP Filtering -> Incoming** in the left side menu to open the configuration page. Click **Add** to create a new rule.

Add IP Filter -- Incoming

The screen allows you to create a filter rule to identify incoming IP traffic by specifying a new filter name and at least one condition below. All of the specified conditions in this filter rule must be satisfied for the rule to take effect. Click 'Save/Apply' to save and activate the filter.

Filter Name:

Protocol:

Source IP address:

Source Subnet Mask:

Source Port (port or port.port):

Destination IP address:

Destination Subnet Mask:

Destination Port (port or port.port):

WAN Interfaces (Configured in Routing mode and with firewall enabled only)
Select at least one or multiple WAN interfaces displayed below to apply this rule.

Select All

pppoe_0_35_1/ppp_0_35_1

2. Define a **Filter Name** for the filter rule. Specify protocol, source IP address, subnet mask and port (range) and destination IP address, submask and port (range).
3. Select the WAN interface through which the packets enter the firewall.
4. Press **Save/Apply** to save and activate the settings.



Access time restriction

This function enables to put time restriction on Internet access by setting up blocking time table. To configure the access time restriction:

1. Click **Advanced Setup -> Security -> Parental Control** in the left side menu to open the configuration page. Click **Add** to create a new rule.

Time of Day Restriction

This page adds time of day restriction to a special LAN device connected to the Router. The "Browser's MAC Address" automatically displays the MAC address of the LAN device where the browser is running. To restrict other LAN device, click the "Other MAC Address" button and enter the MAC address of the other LAN device. To find out the MAC address of a Windows based PC, go to command window and type "ipconfig /all".

User Name

Browser's MAC Address

Other MAC Address

(xxxxxxxxxxxxxx)

Days of the week **MonTueWedThuFriSatSun**

Click to select

Start Blocking Time (hh:mm)

End Blocking Time (hh:mm)

2. Fill in the User name to whom you want to apply the restriction.
3. Fill in the MAC address of the restricted host. If you are accessing this configuration at the computer of restricted host, select **Browser's MAC Address** radio button. The system automatically detects the MAC address of the configuration console. If you want to configure hosts other than the console computer, enter the MAC address manually.



To get the MAC address of a host, click **Start** menu on the desktop of the host, select **Run...**, type **cmd** into the box and press **OK**, then type command **ipconfig /all** and press enter. You can find the MAC address displayed as **Physical Address**.

4. Select the days of a week to which the rule shall apply.
5. Fill time into the **Start Blocking Time** and **End Blocking Time** box to set up block time.
6. Press **Save/Apply** to save and activate the settings.



Advanced settings

This chapter shows how to configure other advanced router features of DSL-N13.

WAN

Click **Advanced Setup** -> **WAN** in the left side menu to enter the WAN setup page. This page allows you to edit the WAN settings.

LAN

1. Click **Advanced Setup** -> **LAN** in the left side menu to enter the **Local Area Network (LAN) Setup** page. This page allows to change the IP address and subnet mask of the router, enables or disables UPnP, IGMP snooping and DHCP server.

Local Area Network (LAN) Setup

Configure the DSL Router IP Address and Subnet Mask for LAN interface. Save button only saves the LAN configuration data. Save/Reboot saves the LAN configuration data and reboots the router to make the new configuration effective.

IP Address:

Subnet Mask:

Enable UPnP

Enable IGMP Snooping

Disable DHCP Server

Enable DHCP Server

Start IP Address:

End IP Address:

Leased Time (hour):

The default settings are:

- IP Address: 192.168.1.1
 - Subnet mask: 255.255.255.0
 - Enable UPnP: Yes
 - Enable IGMP Snooping: No
 - Enable DHCP Server: Yes
- Start IP Address: 192.168.1.2
 End IP Address: 192.168.1.254
 Lease Time (hour): 24

DHCP server is enabled by default. You can define which addresses to be assigned to the LAN computers by DHCP server.

2. Press **Save** to save the configurations and go on setting up other features. If all settings are complete, press **Save/ Reboot** to apply the settings and reboot DSL-N13.



Setting up DNS server

Domain Name System (DNS) server is used to translate IP addresses into easy-to-remember domain names, such as www.asus.com, and vice versa.

Click **Advanced Setup** -> **DNS** -> **DNS Server** to open the DNS server configuration page. By default, the DNS server is set to automatically accept the DNS server assigned by ISP. If your ISP specifies certain DNS server addresses, uncheck **Enable Automatic Assigned DNS** checkbox and type the DNS addresses into the **Primary DNS server** box and **Secondary DNS server** box (if any). Click **Save** to save the settings.

DNS Server Configuration

If 'Enable Automatic Assigned DNS' checkbox is selected, this router will accept the first received DNS assignment from one of the PPPoA, PPPoE or MER/DHCP enabled PVC(s) during the connection establishment. If the checkbox is not selected, enter the primary and optional secondary DNS server IP addresses. Click 'Save' button to save the new configuration. You must reboot the router to make the new configuration effective.

Enable Automatic Assigned DNS

Primary DNS server:

Secondary DNS server:

Setting up dynamic DNS

Hosts using dynamic IP addresses can associate with a domain name via Dynamic DNS (DDNS). To use DDNS function, you need first register at a dynamic DNS service provider, such as DDNS, to get a valid account.

DDNS account request procedures

1. Type **www.DynDNS.org** to the address box of your Web browser and press **Enter**.

Read the policy and select "I have read...".

DynDNS User: Password:

About Services Account Support News

Create Account

Please complete the form below to create your account. You will receive an e-mail containing instructions to activate your account. If you do not follow these directions within 48 hours, you will need to recreate your account.

It is strongly recommended that you visit this page [regularly](#). You are not currently visiting this page regularly.

Acceptable Use Policy
Policy last Notified: May 31, 2005

1. ACKNOWLEDGMENT AND ACCEPTANCE OF TERMS OF SERVICE

All services provided by Dynamic Network Services, Inc. ("DynDNS") are provided to you (the "Member") under the Terms and Conditions set forth in this Acceptable Use Policy ("AUP") and any other operating rules and policies set forth by DynDNS. The AUP comprises:

I have read and agree to the Acceptable Use Policy above.

2. Enter your user name, e-mail address, password, then click **Create Account**.

Username

Username:

Your username will be used to login to your account and make changes.

E-mail Address

E-mail Address: Confirm E-mail Address:

The e-mail address you enter must be valid. Instructions to activate your account will be sent to the e-mail address provided. You must keep this address current. Any accounts with invalid e-mail addresses are subject to removal without warning. We do not sell our list to anyone. Read more about our [privacy policy](#).

Password

Password: Confirm Password:

The password you enter will be used to access your account. It must be more than 5 characters and cannot be your username.



3. A message prompts out asking you to check your mailbox for the activation letter. Open your mailbox and read the mail.

Account Created

Your account, account, has been created. Directions for activating your account have been sent account@asus.com. To complete registration, please follow the directions that you will receive. You must complete these steps within 48 hours to complete your registration.

You should receive the confirmation e-mail within a few minutes. Please make certain that your spam filtering allows messages from support@dyndns.com to be delivered. If you have not received this e-mail within an hour or so, request a [password reset](#).

Following the instructions in the password reset e-mail will also confirm your new account. If you don't receive the password reset e-mail, you should check with your e-mail provider to determine why you are not receiving these messages.

4. You can find the letter in your E-mail box. Click the hyperlink.

Our basic service offerings are free, but they are supported by our premium services. See <http://www.dyndns.com/services/> for a full listing of all of our available services.

To confirm your account, please go to the address below:

https://www.dyndns.com/account/confirm/hbNtkWZBHJJaIM4emvCrqA

5. The link directs you to a login page. Click **login**.

Account Confirmed

The account "account" has been confirmed. You can now [login](#) and start using your account.

We have a system announcements mailing list you may wish to subscribe to - this list is used for notifications of new services, changes to services, and important system maintenance/status notifications. To subscribe, simply send an e-mail to announce@lists.dyndns.org.

6. Enter the user name and password then click **Login**.

Login

It is already recommended that you visit this page [again](#). You are not currently visiting this page securely.

Account Login:

Username: Password:

*password not given.

7. After logging in, you can see this welcome message.

Logged In

You are currently logged in as: account ([Logout](#))

8. Select **Services** tab.

Logged in User: W50028
My Settings: [Admin](#) / [User Data](#)

DynDNS

About Services Account Support News

Services	Services
DNS Services	DynDNS provides a variety of services that help enhance your home or business Internet experience. We offer superior domain name services (DNS), high quality domain management, world-class e-mail services, web redirection, and network monitoring. All of our services include the technical support by email or phone where you speak to a highly trained engineer rather than a call center reading a script off of a screen.
Domain Registration	
Mail Services	
Network Monitoring	
Web Redirection	
Account Upgrades	DNS Services

9. Click **Add Dynamic DNS Host**.

My Account	Add Host Services										
My Services Account Upgrades MailHop Outbound Recursive DNS SLA Premier Support My Zones Add Zone Services My Hosts Add Host Services Dynamic DNS	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Dynamic DNS (7)</td> <td style="text-align: right;">Add Dynamic DNS Host</td> </tr> <tr> <td style="text-align: center;">Static DNS (2)</td> <td style="text-align: right;">Add Static DNS Host</td> </tr> <tr> <td style="text-align: center;">WebHop (2)</td> <td style="text-align: right;">Add WebHop</td> </tr> <tr> <td style="text-align: center;">MyWebHop (2)</td> <td style="text-align: right;">Add MyWebHop</td> </tr> <tr> <td style="text-align: center;">Network Monitoring (2)</td> <td style="text-align: right;">Add Network Monitoring</td> </tr> </table>	Dynamic DNS (7)	Add Dynamic DNS Host	Static DNS (2)	Add Static DNS Host	WebHop (2)	Add WebHop	MyWebHop (2)	Add MyWebHop	Network Monitoring (2)	Add Network Monitoring
Dynamic DNS (7)	Add Dynamic DNS Host										
Static DNS (2)	Add Static DNS Host										
WebHop (2)	Add WebHop										
MyWebHop (2)	Add MyWebHop										
Network Monitoring (2)	Add Network Monitoring										

10. Enter the host name then click **Add Host**.

New Dynamic DNSSM Host

Hostname:	<input type="text" value="account"/>	<input type="text" value="dyndns.org"/>	<input type="button" value="Add Host"/>
IP Address:	<input type="text" value="210.74.250.126"/>		
Enable Wildcard:	<input type="checkbox"/>		
Mail Exchanger (optional):	<input type="text"/>	<input type="checkbox"/> Backup MX?	<input type="button" value="Reset Form"/>



11. You can see this message when your hostname is successfully created.

Hostname Created	
The hostname you have requested has been created. The information now in the database and DNS system is:	
Hostname:	account.dyndns.org
IP Address:	210.74.250.126
Wildcard:	N

DSL-N13 DDNS settings

1. Click **Advanced Setup -> DNS -> Dynamic DNS** to enter the configuration page. Press Add to configure Dynamic DNS.
2. Choose your DDNS provider and fill in the hostname. The supported DDNS provider are DynDNS.org and TZO. DynDNS.org settings require username and password of your DDNS account. TZO requires registered Email address and Key.

Add dynamic DDNS

This page allows you to add a Dynamic DNS address from DynDNS.org or TZO.

D-DNS provider:

Hostname:

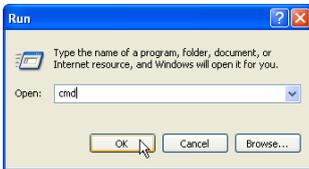
Interface:

DynDNS Settings

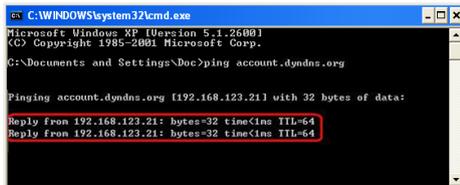
Username:

Password:

3. Press **Save/Apply** to save and activate the settings.
4. To verify whether DDNS is working, click **Start** menu and select **Run....**Type **cmd** and click **OK** to open the CLI console.



5. Type **ping account.dyndns.org** (your DDNS domain name). If you can see the reply like what is shown in the picture, DDNS is working correctly.





Setting up default gateway

This section allows to manually setup default gateway of Internet connection.

1. Click **Advanced Setup -> Routing -> Default Gateway** to open the configuration page.

Routing -- Default Gateway

If Enable Automatic Assigned Default Gateway checkbox is selected, this router will accept the first received default gateway assignment from one of the PPPoA, PPPoE or MER/DHCP enabled PVC(s). If the checkbox is not selected, enter the static default gateway AND/OR a WAN interface. Click 'Save/Apply' button to save it.

NOTE: If changing the Automatic Assigned Default Gateway from unselected to selected, You must reboot the router to get the automatic assigned default gateway.

Enable Automatic Assigned Default Gateway

Use Default Gateway IP Address

2. By default, automatic assigned default gateway is enabled, that is, the router accepts the first received gateway assignment from ISP. If your ISP specifies a gateway, uncheck **Enable Automatic Assigned Default Gateway** and enter the gateway address.
3. Press **Save/Apply** to save and activate the settings.

Setting up static route

For simple networks that have only one router, you do not need to set up static route. For more complicated network such as an enterprise network where several routers and different subnets exist, you need to configure static routes so as to direct the network traffic correctly.

1. Click **Advanced Setup -> Routing -> Static Route** to open the configuration page and view the current static route settings. Press **Add** to create a new static route.

Routing -- Static Route Add

Enter the destination network address, subnet mask, gateway AND/OR available WAN interface then click 'Save/Apply' to add the entry to the routing table.

Destination Network Address:

Subnet Mask:

Use Gateway IP Address

Use Interface

2. The configurable settings include:
 - Destination Network: input the IP address of destination;
 - Subnet Mask: input the subnet mask of destination;
 - Use Gateway IP Address: input the gateway network address (optional);
 - User Interface: select the interface of your router to which the static route applies.
3. Press **Save/Apply** to save and activate the settings.



Setting up routing protocol - RIP

RIP stands for Routing Information Protocol. DSL-N13 supports RIPv1 and RIPv2.

1. Click **Advanced Setup -> Routing -> RIP** to open the configuration page.

Routing -- RIP Configuration

To activate RIP for the device, select the 'Enabled' radio button for Global RIP Mode. To configure an individual interface, select the desired RIP version and operation, followed by placing a check in the 'Enabled' checkbox for the interface. Click the 'Save/Apply' button to save the configuration, and to start or stop RIP based on the Global RIP mode selected.

Global RIP Mode Disabled Enabled

Interface	VPI/VCI	Version	Operation	Enabled
br0	(LAN)	2	Active	<input type="checkbox"/>
ppp_0_35_1	0/35	2	Passive	<input type="checkbox"/>

2. To activate RIP, select **Enabled** radio button for global RIP mode.
3. To configure an individual interface, select the desired RIP version and operation and check the **Enabled** checkbox for the interface.
4. Press **Save/Apply** to save and activate the settings.



ASUS AiDisk Setup

Instant AiDisk Sharing

Asus AiDisk helps you remotely share your files with an easy-to-remember link. You can choose “Instant AiDisk Sharing” or “Secured AiDisk Sharing” first then set up your preferred host name.

To let other people to log in your FTP without using any account ID and password:

1. Click **USB Application > FTP Server > FTP Settings** to open the **FTP settings** page (see figure below). This page displays the default settings.

2. Click **Save/Apply** (see figure above) to save and apply the default settings. By default, DSL-N13 will create two shared folders: ftp_pub and ftp_prt.

Now, people can access your FTP without using any account ID and password to read, write and delete both ftp_pub and ftp_prt folders and other files on the USB disk attached to DSL-N13.

Secured AiDisk Sharing

To allow only a limited number of selected people to access the FTP files:

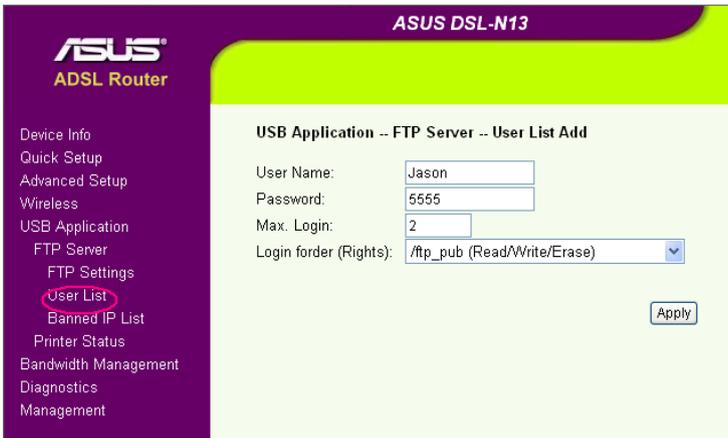
1. Select **No** behind the **Allow Anonymous User to Login** option from the FTP Settings page (see figure above).



- Click **USB Application > FTP Server > User List** to open the **User List** page (see figure below).



- Click **Add** from the **User list** page to open the **User List Add** page (see figure below) and to add users. If you want to remove a user, check the **Remove** box behind that user and click the **Remove** button.

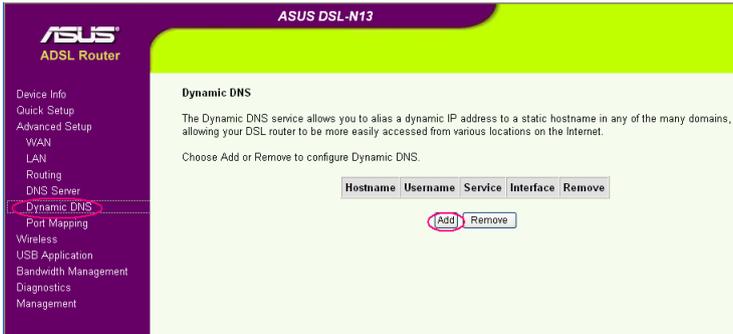


- On the **User List Add** page (see figure above), key in the **User Name** and **Password** for an allowed user.
- From the **Login folder (rights)** drop-down list, select the folder (ftp_pub or ftp_prt) that you allow the user to access and the right (read, write, delete, or any combination) that you want to assign to the user.
- Click **Apply** button.

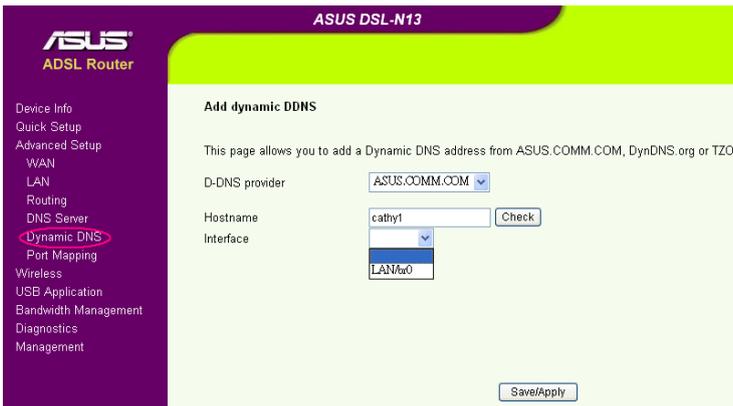


ASUS DDNS Service: Set up An Easy-to-Remember Host Name

1. Click **Advanced setup > Dynamic DNS** to open the **Dynamic DNS** page (see figure below).



2. Click **Add** from the **Dynamic DNS** page (see figure above) to open the **Add dynamic DDNS** page. (see figure below).



3. Input your preferred name in the **Hostname** bar. Click **Check** button to see if your preferred name is still available.
4. Choose your current Internet settings from the **Interface** drop-down list, then click **Save/Apply**. DSL-N13 will automatically reboot.
5. You can now have your unique, preferred, and easy-to-remember name to share your AiDisk! Just tell your friends to type ftp://yourpreferredname.asuscomm.com into the address box of their web browser and press Enter key to get onto your AiDisk with designated user name and password (if any).



USB applications

DSL-N13 offers two USB2.0 ports for setting up FTP server and sharing USB printer.

FTP server function

Before setup, you need to prepare a USB disk for FTP storage.

Setting up FTP server

To setup FTP server:

1. Plug your USB storage into the USB2.0 port on the DSL-N13 rear panel. Then click **USB Application -> FTP Server** in the left side menu to open the configuration page.

USB Application - FTP Server

Force to Eject USB Disk:	<input type="button" value="Eject"/>
Enable FTP Server?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Allow Anonymous User to Login?	<input checked="" type="radio"/> Yes <input type="radio"/> No Login
Allow Super User to Login?	<input type="radio"/> Yes <input checked="" type="radio"/> No Login
FTP Port:	<input type="text" value="1111"/>
Maximum Users Allowed to Log in:	<input type="text" value="10"/>
Login Timeout in Seconds:	<input type="text" value="120"/>
Stay Timeout in Seconds:	<input type="text" value="240"/>
<input type="button" value="Save/Apply"/>	

2. Set **Enable FTP Server** to **Yes**.
3. **Allow Anonymous User to Login:** If you want to allow anonymous user to access your FTP site, select **Yes**; if you want to protect your data from unauthenticated user, select **No**.
4. **Allow Super User to Login:** Select **Yes** to allow super user to access the FTP server.
5. **FTP Port:** Set up the port number of the FTP server. For example, if the port number is set to 1111, you can access the FTP server by typing **ftp://192.168.1.1:1111** into the address box of your Web browser (192.168.1.1 is the default IP address of DSL-N13).
6. **Maximum User Allowed to Login:** set up the maximum login user according to your working environment.
7. **Login Timeout in Seconds:** When login times out, the login trail is terminated.
8. **Stay Timeout in Seconds:** Timeout value for inactive connection.
9. Press **Save/Apply** to save and activate the settings.



Setting up FTP account

You can set up 12 accounts for your FTP site.

1. Click **USB Application -> FTP Server -> User List** in the left side menu to open the configuration page. Click **Add** to create new FTP account.

Add User Account List

User Name:

Password:

Max. Login:

Rights: ▼

2. Define the **User name**, **Password** for the new account. Setup the **Max. Login** to restrict the access request. Define the access right to the account.
3. Click **Apply** to save the new account.
4. Click **Save** to save and activate the settings.

Setting up FTP security

You can deny access request from certain IP address by setting up **Banned IP List**.

1. Click **USB Application -> FTP Server -> Banned IP List** in the left side menu to open the configuration page. Click **Add** to create a new rule.

Add IP List

IP Address:

2. Input the IP address of the banned host and click **Apply** to save the banned IP. Make sure the banned IP is static.
3. Click **Save** to save and activate the settings.

Your FTP site is ready. Type **ftp://192.168.1.1(:port number)** into the address box of your Web browser and press **Enter**. When prompted for login, input the username and password you have set up for FTP account and login.



Sharing USB printer

You can plug your USB printer to the USB2.0 port of DSL-N13 to share it within your LAN. After you plug a printer to the USB port, you can see the status of printer by clicking **USB Application -> Printer Status**.



Setting up printer client under Windows XP

Follow the steps below to install network printer on your clients.

1. Run Add Printer Wizard from **Start -> Printers and Faxes -> Add a printer**.
2. Select **Local printer attached to this computer** and click **Next**.



3. Select **Create a new port** and set Type of port to **Standard TCP/IP Port**, then click **Next**.
4. Click **Next** to setup TCP/IP port for accessing the network printer.





- Input the IP address of DSL-N13 in the **Printer Name** of **IP Address** field and click **Next**.

- Select **Custom** and click **Settings...**

- Set **Protocol** to **LPR** and type **LPRServer** in **Queue Name** field. Click **Next** to continue.

- Press **Next** to finish standard TCP/IP port setting.

- Press **Finish** to complete the settings and return to Add Printer Wizard.

- Install printer driver from the vendor-model list. If your printer is not in the list, click **Have Disk** to manually assign the location of driver.



11. Click **Next** to accept the default name for the printer.



12. Select **Yes** to print a test page. Click **Next** to print.



13. The installation is complete. Click **Finish** to quit the Add Printer Wizard.



If you have already installed the printer locally on your computer, right click the printer icon and select **Property -> Port** tab to add a standard TCP/IP port. Click **Add Port** then select **Standard TCP/IP Port** and click **New Port** button. Refer to Step 5-8 for setting procedures.



If you use Windows® 98 or ME which does not support Standard TCP/IP port, you need to use Remote Port which is supported by DSL-N13.



Management

This chapter describes how to maintain your DSL-N13 wireless ADSL router.

Configuration backup

You can backup the configuration to a file and store it on your computer. Click **Management -> Settings** to open the configuration page and click the **Backup Settings** button. Click **Save** and define the destination folder. The default name for backup file is **backupsettings.conf**.

Settings - Backup

Backup DSL router configurations. You may save your router configurations to a file on your PC.

Restore settings from a backup file

You can restore the settings from a backup file when you have reset the wireless router to factory default. Click **Management -> Settings -> Update** to open the configuration page. Click **Browse...** to locate the backup file on your computer, then click **Update Settings** button to proceed. When restoring is complete, the wireless router reboots. The whole process takes about 80 seconds.

Tools -- Update Settings

Update DSL router settings. You may update your router settings using your saved files.

Settings File Name:

Reset to factory default

If you want to clear all settings and return to the factory default settings. You can press the **Reset** button on the rear panel of the wireless router for 10 seconds; or click **Management -> Settings -> Restore Default** to open the configuration page and click the **Restore Default Settings** button.

Tools -- Restore Default Settings

Restore DSL router settings to the factory defaults.



Setting up time server

You can configure the time setting so that DSL-N13 can always synchronize with a time server from Internet. Click **Management -> Time settings** and check **Automatically synchronize with International servers**. Select a time server from the drop-down list and set your time zone. When finished, click **Save/Apply**.

Time settings

This page allows you to the modem's time configuration.

Automatically synchronize with Internet time servers

First NTP time server:

Second NTP time server:

Daylight Saving Time(DST) was not support.

Time zone offset:

Firmware update

To update firmware, click **Management -> Update Software**. Click **Browse...** to locate the firmware file, then click **Update Software** button to start uploading the firmware. The update process takes about two minutes.

Device Info

Board ID:	WL-600g
Software Version:	1.0.1.9

Tools -- Update Software

Step 1: Obtain an updated software image file from your ISP.

Step 2: Enter the path to the image file location in the box below or click the "Browse" button to locate the image file.

Step 3: Click the "Update Software" button once to upload the new image file.

NOTE: The update process takes about 2 minutes to complete, and your DSL Router will reboot.

Software File Name: