

RT-N15 SuperSpeed N Wireless Router



User Manual

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Table of contents

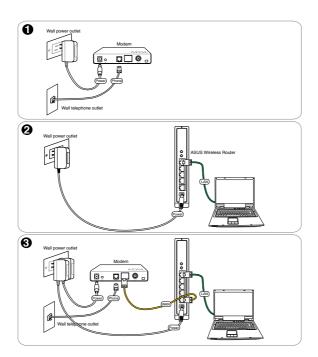
Manufacturer Contact Information	2
Table of contents	1
1. Package contents	2
2. Connecting ADSL modem and wireless router	2
1) Cable connection	2
2) Status indicators	3
3. Getting started	4
1) Wired connection	4
2) Wireless Connection	4
3) Setting IP address for wired or wireless client	4
4) Configuring the wireless router	5
5) Quick setup	6
4. Wireless router features	11
1) Choosing an appropriate operation mode	11
2) Setting up wireless encryption	12
3) Setting up virtual server in your LAN	13
4) Setting up virtual DMZ in your LAN	14
5) Setting up DDNS	14
6) Setting up Bandwidth Management	18
5. Setting up using ASUS utility	20
1) Utility Installation for RT-N15	20
2) WPS utility	21
3) Firmware Restoration	23
6. Configure RT-N15 under Vista OS	24
1) Configuring the device	24
2) Setting up the network sharing center	
7. Troubleshooting	
8. Appendix	

1. Package contents

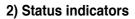
- RT-N15 wireless router x 1
- Power adapter x 1
- Utility CD x 1
- RJ45 cable x 1
- Quick Start Guide x 1

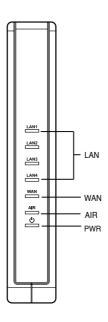
2. Connecting ADSL modem and wireless router

1) Cable connection



(2)





PWR (Power)	
Off	No power
On	System ready
Flashing-slow	Firmware upgrade failed
Flashing-quick	WPS processing
AIR (Wireless Net	work)
Off	No power
On	Wireless system ready
Flashing	Transmitting or receiving data (wireless)
WAN (Wide Area N	letwork)
Off	No power or no physical connection
On	Has physical connection to an Ethernet network
Flashing	Transmitting or receiving data (through Ethernet cable)
LAN 1-4 (Local Are	ea Network)
Off	No power or no physical connection
On	Has physical connection to an Ethernet network
Flashing	Transmitting or receiving data (through Ethernet cable)

3. Getting started

The ASUS RT-N15 Wireless Router can meet various working scenarios with proper configuration. The default settings of the wireless router may need change so as to meet your individual needs. Therefore, before using the ASUS Wireless Router, check the basic settings to make sure they all work in your environment.

ASUS provides a utility named WPS for fast wireless configuration. If you would like to use EZSetup for your wireless network configuration, refer to chapter 5 for details.



Note: Wired connection for initial configuration is recommended to avoid possible setup problems due to wireless uncertainty.

1) Wired connection

The RT-N15 Wireless Router is supplied with an Ethernet cable in the package. The wireless router has an integrated auto-crossover function. Thus, you can either use straight-through or crossover cable for wired connection. Plug one end of the cable to the LAN port on the rear panel of the router and the other end to the Ethernet port on your PC.

2) Wireless Connection

For establishing wireless connection, you need an IEEE 802.11b/g/n compatible WLAN card. Refer to your wireless adapter user manual for wireless connection procedures. By default, the SSID of ASUS Wireless Router is "default" (in lower case), encryption is disabled and open system authentication is used.

3) Setting IP address for wired or wireless client

To access the RT-N15 Wireless Router, you must have correct TCP/IP settings on your wired or wireless clients. Set the IP addresses of the clients within the same subnet of RT-N15.

Getting an IP address automatically

The RT-N15 Wireless Router integrates DHCP server functions, thus, your PC gets an IP address automatically.

Note: Before rebooting your PC, switch ON the wireless router and make sure the router is in ready state.

Setting up the IP address manually

To manually set the IP address, you need to know the default settings of the wireless router:

- IP address 192.168.1.1
- Subnet Mask 255.255.255.0



To set up the connection with a manually assigned IP address, the address of your PC and the wireless router must be within the same subnet:

- 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 (same as RT-N15)
- Gateway: 192.168.1.1 (IP address of RT-N15)
- DNS: 192.168.1.1 (RT-N15), or assign a known
 DNS server in your network.

4) Configuring the wireless router

internet Protocol (TCP/IP) Pi	operties ? 🛛
General	
	automatically if your network supports ed to ask your network administrator for
Obtain an IP address autom	atically
Use the following IP address	c
IP address:	192.168.1.8
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	192.168.1.1
Obtain DNS server address	automatically
 Use the following DNS served 	er addresses:
Preferred DNS server:	192.168.1.1
Alternate DNS server:	· · · ·
	Advanced
	OK Cancel

Cannot find server - Microsoft Inte File Edit View Favorites Tools Help Back
Sector 20 -
Sec

Enter the following address in your web browser: http://192.168.1.1



Defaults

User name: admin Password: admin



Follow the steps below to enter the Web configuration interface of RT-N15.

After logging in, you can see the ASUS Wireless Router home page.

The homepage displays quick links to configure the main features of the wireless router.

5) Quick setup

To start quick setup, click **Next** to enter the "Quick Setup" page. Follow the instructions to setup the ASUS Wireless Router. ■ Home
■ Quick Setup
■ Wireless

- 1. Select your time zone and click Next.
- ASUS wireless router supports five types of ISP services: cable, PPPoE, PPTP, static WAN IP, and Telstra BigPond. Select your connection type and click Next to continue.

Please choose the time zone where you are locating in.	
me Zone:	(GMT-12:00) Eniwetok, Kwajalein
	[Next]
elect Internet Connection Type	
	ion to Internet through its WAN port. Please select fore getting on Internet, please make sure you have & or Cable Modem.
² Cable Modem or other connection type t	hat gets IP automatically.
ADSL or other connection that requires t	semame and password. It is known as PPPoE.
ADSL or other connection that requires u	semame, password and IP address. It is known as PPTP.
ADSL or other connection type that uses	static IP address.
[^] Telstra BigPond Cable Modem Service.	
-	semame, password and IP address. It is known as L2TP.
ADSL or other connection that requires a	

Cable or dynamic IP user

If you are using services provided by cable ISP, select **Cable Modem or other connection that gets IP automatically**. If your ISP provides you with the hostname, the MAC address, and the heartbeat server address, fill these information into the boxes on the setting page; if not, click **Next** to skip this step. Fill Information Required by ISP Your ISP may require the following information to identify your account. If not, just press Next to grade it.

Host Name:	
MAC Address:	
Heart-Beat Server:	

Prev Next

WAN IP Setting

Get IP automatically?	" Yes " No
IP Address:	
Subnet Mask:	
Default Gateway:	
Get DNS Server automatically?	€ Yes C No
DNS Server 1:	
DNS Server 2:	

Prev Next

PPPoE user

If you use PPPoE service, select **ADSL** connection that requires username and password. It is known as PPPoE. You need to input the username and password provided by your ISP. Click **Next** to continue.

If you apply an account with dynamic IP ISP. Please fill this data into the followini static IP, just ignore user name and pass	. You must get user account and password from your g fields carefully. Or, if you apply an ADSL account with word information.	
User Name:	abo@hinnet.net	
Password:		

PPTP user

If you are using PPTP services, select ADSL connection that requires username, password and IP address. Fill in the username, password and IP address provided by your ISP into the fields. Click Next to continue.

If you apply an account with dyna ISP. Please fill this data into the fo	mic IP. You must get user account and password from your flowing fields carefully.
User Name:	herk036@adsl-comfort
Password:	

WAN IP Setting

Get IP automatically?	Yes No
IP Address:	10.1.1.1
Subnet Mask:	255.0.0.0
Default Gateway:	219.31.111.1
Get DNS Server automatically?	C Yes C No
DNS Server 1:	168.95.1.1
DNS Server 2:	

Prev Next

Static IP user

If you are using ADSL or other connection type that uses static IP address, select **ADSL** or other connection type that uses static IP address. Input the IP address, subnet mask, and default gateway provided by your ISP. You can specify DNS servers, or get DNS information automatically.

 To set up your wireless interface, specify an SSID (Service Set Identifier), which is a unique identifier attached to packets sent over WLAN. This identifier emulates a password when a device attempts to communicate with your wireless router

via WLAN.

Fill TCP/IP setting for RT-N15 to connect	to Internet through WAN
Get IP automatically?	C Yes C No
IP Address:	10.1.1.1
Subnet Mask:	255.0.0.0
Default Gateway:	219.31.111.1
Get DNS Server automatically?	C Yes C No
DNS Server 1:	168.95.1.1
DNS Server 2:	

Prev Next

First step to set your wireless int would like to protect transmitted for authentication and data trans	erface is to give it a name, called SSID. In addition, if you data, please select the Security Level and assign a password mission if it is required.
SSID:	RT-N15
Security Level:	Low(Open System)
WEP Көу Туре:	Low(Open System) Medium(WEP-64bits) Medium(WEP-12bits)
Passphrase:	High(WPA-Personal)
WEP Key 1:	
WEP Key 2:	
WEP Key 3:	
WEP Key 4:	
Key Index:	1

If you want to protect transmitted data, select a **Security Level** to enable encryption methods.

Medium: Only users with the same WEP key settings can connect to your wireless router and transmit data using 64bits or 128bits WEP key encryption.

High: Only users with the same WPA pre-shared key settings can connect to your wireless router and transmit data using TKIP encryption.

4. Input four sets of WEP keys in the WEP Key fields (10 hexadecimal digits for WEP 64bits, 26 hexadecimal digits for WEP 128bits). You can also let the system generate the keys by inputting a Passphrase. Record the Passphrase and the WEP keys in your notebook, then click **Finish**.

For example, if we select WEP 64bits encryption mode and input 11111 as the Passphrase, the WEP Keys are generated automatically.

 Click Save&Restart to restart the wireless router and activate the new settings.

6.	To connect the	wireless	router from a
	wireless client,	you can	use Windows®

First step to set your wireless inter would like to protect transmitted d for authentication and data transm	face is to give it a name, called SSID. In addition, if you ata, please select the Security Level and assign a passwore ission if it is required.	
SSID:	RT-N15	
Security Level:	Medium(WEP-64bits)	
WEP Key Type:	HEX 🛩	
Passphrase:	5438253	
WEP Key 1:	817698D034	
WEP Key 2:	2F3CCCE666	
WEP Key 3:	EA05B3DD34	
WEP Key 4:	5F3DB77C44	
Key Index:	1 🛩	

Save & Restai	rt .
You have finished t setting or perform i	the basic setting. You can just press Save&Restart button to apply your other advanced settings.
	Save&Restart

Wireless Zero Configuration service to set up the connection. If you use ASUS Wireless Card on your computer, you can use the One Touch Wizard utility supplied in WLAN Card support CD for wireless connection.

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 -> All Programs -> ASUS Utility-> WLAN Card -> One Touch Wizard to launch the One Touch Wizard utility.

_							
1	Windows Catalog						
2	Windows Update					1	ASUS WLAN Control Center
	Set Program Access and Defaults						9 Mobile Manager
-			• •				🛃 One Touch Wizard
Ē	Programs	, 🖻		•			🥩 Site Monitor
		- 0	Borland C++Builder 5	•		- 1	🐣 TroubleShooting
0	Documents	۱ 📾	Marvell(R) Libertas 802.11abg Client and SoftAP	۲		3	💱 Uninstall ASUS WLAN Card Utilities
	Settings	, 📾	ASUS Utility	•	🖬 WLAN Card		😤 Wireless Settings
	5000.00		×		m RT-N15 Wireless Router	•	
۶	Search	•			-		
?	Help and Support						

1) Select Connect to an existing wireless LAN (Station) radio button and click Next to continue.



 Set the authentication and encryption of your WLAN card the same with those at RT-N15. In the previous steps the Key Length is 64 bits, Passphrase is 11111 Click Next to continue.

	and a second	and and the second	An and a star
	Configure your WEP keys Generation. Refer to the u WEP keys Click Next to continue.	by Manual Assignment ler guide for details on	or Automatic how to set the
	Network Authentication I	Shared model	
NA =	Wateless network key		
	Key Format Hexa	decimal digits	* 30
	KeyLength 64 bit	s (10 digits)	- 11
	C Manual Assistment		
s 🔍 📳	Key I STLAT	75578	
	Kay 2 - 01-201	ACSE	
A STREET	Tay 2 SUBFI	3084	
	Key C 15473	JOSEF.	
	· Automatic Generation		
	Passphvase : 11111		
000	Select one as your Defaul	t Key no Key	
		Lead Lead	
	d (Back)	Sent > 🗘	X Cancel

 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.



 One Touch Wizard searches and displays the available APs in the Available Networks list. Select RT-N15 and press Next to continue.

	C Configure as	our wireless LAN setti	
		an existing wireless L	
	The Wizard will now witeless networks. Ti below. Wireless LAN the RT-N15_Ne Wireless LAN the j	reach your wireless LAN he wireless networks four at has the best signal blwork (00:FF:20:08:0 rou want to connect to: work (00:FF:20:08:00:01)	environment for available id is displayed on the table t
2. 🔍 🛛	SSID	CH RSS	Encruption
	ET-N15 Network	10 -23	TKIP M/PA/PSKI
	tsd	1 -80 6 -30	TKIP (WPA-PSK) WEP
	Number of known w	weless network(s) 3	
	-		∑earch Again

 It takes several seconds for the wireless card to associate with RT-N15. Press Next to setup TCP/IP for your WLAN Card.

ASUS ONE TOUCH VIA	TARD	
	You even the LME and a concentrate to an AP. Concentration LME for the International Systems of the Int	
	da < Back Next > ₫ X Dancel	

Configuring WLAN card with Windows® WZC service

If you use non-ASUS wireless card, you can set up the wireless connection with Windows[®] Wireless Zero Configuration (WZC) service.

 Double-click the wireless network icon on the task bar to view available networks. Select your wireless router and click Connect.

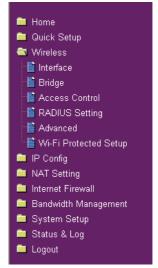
Network Tasks	Choose a wireless network	
💋 Refresh network list	Click an item in the list below to connect to a weekess network in rar information.	ge or to get more
Set up a vireless network for a turne or small office	((p)) RT-NLS	ite.
Related Tasks	((p)) default Unsecured winiess network	itee.
networking Change the order of preferred networks	((p)) defjerel Unsequed virsiess network	att
Change advanced settings	((p)) RT-N15_SR#008_Scott	iller
	((Q)) DSL-913_Ageng1 Unsecured versions retricts	aul
	((p)) dink	

 Input the 10-digit keys you have set on the wireless router and click Connect. The connection is complete within several seconds.

	• • • • • • • • • • • • • • • • • • •
Please wait while Wi	ndows connects to the 'RT-N15' network.
Detecting network t	ype
	Cancel
[Cancel
/ireless Network Co	Cancel
The network 'RT-N15_Ne	unnetion
The network 'RT-N15_Ne A network key helps pre-	Cancel Cancel mection tendt requires anebed, lay (also caled a WEP key or WMA ke ret unicount intruders from connecting to this network.
/irelass Network Co The network RT-N25_M A network key helps per Type the key, and then o Network Jpy:	Cancel Cancel mection tendt requires anebed, lay (also caled a WEP key or WMA ke ret unicount intruders from connecting to this network.

7. Configuring advanced features

To view and adjust other settings of the wireless router, enter the Web configuration page of RT-N15. Click on items on the menu to open a submenu and follow the instructions to setup the router. Tips show up when you move your cursor over each item.



4. Wireless router features

This chapter provides setup examples of some frequently used router features. You can set up these features via your Web browser.

1) Choosing an appropriate operation mode

ASUS RT-N15 Wireless Router supports three operation modes: home gateway, router, and access point. Click **System Setup -> Operation mode** to open the configuration page.

	Internet Firewall
	Bandwidth Management
<	System Setup
	Status & Log
	Logout

Home gateway mode is for home or SOHO users who want to connect to their ISPs for Internet services. In this operation mode, NAT, WAN connection, Internet firewall functions are supported.

Router mode is for office use where multiple routers and switches co-exist. You can set up routing policies in this mode; however, NAT function is disabled.

Access point mode works when you setup RT-N15 as a wireless bridge. In this mode, all Ethernet ports on RT-N15 (4 LAN ports and 1 WAN port) are recognized as LAN ports. WAN connection, NAT, and Internet firewall functions are disabled in access point mode.

Select a proper mode which complies to your network scenario and press **Apply** button, and then you can continue to set up the advanced features for your RT-N15.

System Setup -	Operation Mode			
RT-N15 supports three operation modes to meet different requirements from different group of people. Please select the mode that match your situation.				
	In this mode, we suppose you use RT-N15 to connect to Internet through ADSL or Cable Modem. And, there are many people in your environment share the same IP to ISP. Explaining with technical terms, gateway mode is , NAT is enabed, WAN connection is allowed by using PPPOE, or DHCP client, or static IP. In addition, some features which are useful for home user, such as UPnP and DDNS, are supported.			
O Router	In Router mode, we suppose you use RT-N15 to connect to LAN in your company. So, you can set up routing protocol to meet your requirement in office. Explaining with technical terms, router mode is, NAT is disabled, static routing protocol are allowed to set.			
O Access Point	In Access Point mode, 4 LAN ports and wireless devices are set to locate in the same local area network. Those WAN related functions are not supported here. Explaining with technical terms, access point mode is, NAT is disabled, wireless LAN and four LAN ports of RT-N15 are bridged together.			
	Apply			

2) Setting up wireless encryption

RT-N15 provides a set of encryption and authentication methods to meet the different demands of home, SOHO, and enterprise users. Before setting up encryption and authentication for RT-N15, contact your network administrator for advice.

Quick Setup
Wireless
Bridge
Access Control
RADIUS Setting
Advanced
Wirel Protected Setup

Click Wireless -> Interface to open the configuration page.

Wireless - Interface	
SSID:	default
Wireless Mode:	Auto 🔽 🔽 bg Protection
Channel Bandwidth:	20/40 🖌
Channel:	Auto 🛩
Extension Channel:	Auto 🖌
Authentication Method:	Open System 👻
WPA Encryption:	TKIP
WPA Pre-Shared Key:	12345678
WEP Encryption:	None
WEP Кеу Туре:	HEX
Passphrase:	
WEP Key 1:	
WEP Key 2:	
WEP Key 3:	
WEP Key 4:	

Note: For 802.11n performance, select 40MHz bandwidth. Channel option will

depend on the bandwidth that you select.

Encryption

The encryption modes supported by RT-N15 are: WEP (64bits), WEP (128bits), TKIP, AES, and TKIP+AES.

WEP stands for Wired Equivalent Privacy, it uses 64bits or 128bits static keys to encrypt the data for wireless transmission. To setup WEP keys, set WEP Encryption to WEP-64bits or WEP-128bits, then manually type in four sets WEP Keys (10 hexadecimal digits for 64-bit key or 26 hexadecimal digits for 128-bit key). You can also let the system generate the keys by entering a Passphrase.

TKIP stands for Temporal Key Integrity Protocol. TKIP dynamically generates unique keys to encrypt every data packet in a wireless session.

AES stands for Advanced Encryption Standard. This solution offers stronger protection and increases the complexity of wireless encryption.

TKIP+AES is used when both WPA and WPA2 clients co-exist in the wireless network.

Authentication

The authentication methods supported by RT-N15 include: Open, shared key, WPA-PSK, WPA, and Radius with 80.211x.

Open: This option disables authentication protection for wireless network. Under Open mode, any IEEE802.11b/g client can connect to your wireless network.

Shared: This mode uses the WEP keys currently in use for authentication.

WPA/WPA2 and WPA-PSK/WPA2-PSK: WPA stands for WiFi-Protected Access. WPA provides two security modes: WPA for enterprise network, and WPA-PSK for home and SOHO users. For enterprise network, WPA uses the already existing RADIUS server for authentication; for home and SOHO user, it provides Pre-Shared Key (PSK) for user identification. The Pre-Shared Key consists of 8 to 64 characters.

Radius with 802.1X: Similar with WPA, this solution also uses RADIUS server for authentication. The difference lays on the encryption methods: WPA adopts TKIP or AES encryption methods, while Radius with 802.1X does not provide encryption.

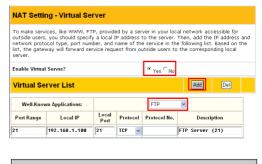
When authentication and encryption are set, click **Finish** to save the settings and restart the wireless router.

3) Setting up virtual server in your LAN

Virtual server is a Network Address Translation (NAT) function which turns a computer within a LAN into a server by allowing data packets of certain service, such as HTTP, from Internet.



- Click Virtual Server in NAT Setting folder to open the NAT configuration page.
- Select Yes to enable virtual server. For example, if host 192.168.1.100 is the FTP server that the user will access, it means all packets from Internet with destination port as 21 are to be directed to the host. Set Well-known Application to FTP. Port range to 21, Local IP to the host IP, Local Port to 21, Protocol to TCP.
- 3. Click Finish.
- Click Save & Restart to restart the wireless router and activate the settings.



Save & Restart

Save&Restart will save all setting you have changed to RT-N15 and restart it. Please click Save&Restart button to continue.

Save&Restart

4) Setting up virtual DMZ in your LAN

To expose an internal host to the Internet and make all services provided by this host available to outside users, enable Virtual DMZ function to open all ports of the host. This function is useful when the host plays multiple roles such as HTTP server and FTP server. However, in doing this, your network becomes less secure.

1.	Click Virtual DMZ in the NAT Se	etting menu.	 IP Config NAT Setting Internet Firewall Bandwidth Management System Setup
2.	Enter the IP address of the host and click Finish .	NAT Setting - Virtual DMZ	
			omputer to Internet, so that all the inbounds packets will It is useful while you run some applications that use t carefully.
		IP Address of Exposed Station:	192.168.1.100
~			
3.	Click Save & Restart to restart the wireless router and activate the settings.	Save & Restart Save&Restart will save all setting you h Save&Restart button to continue.	ave changed to RT-N1S and restart it. Please click Save&Restart

5) Setting up DDNS

DNS enables host who uses static IP address to associate with a domain name; for dynamic IP users, they can also associate with a domain name via dynamic DNS (DDNS). DDNS requires registering and account-creating at DDNS service providers' website. The DDNS server updates your IP address information once you are assigned to a new IP address. Thus, the Internet user can always access your network.

DDNS Setting

1. Click DDNS from IP Config folder.



 Select Yes to enable the DDNS service. If you do not have a DDNS account, click Free Trial to register for a trial account.

	port your server to Internet with an unique name, even Currently, serveral DDNS clients are embedded in RT-N1! with a free trial account.
Enable the DDNS Client?	© Yes ℃ No
Server:	WWW.DYNDNS.ORG
Server.	Eree Trial

 After clicking Free Trial, you are directed to the homepage of <u>www.DynDNS.</u> org, where you can register and apply for DDNS service.

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

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

- A message prompts out informing that your account has been created. An E-mail is sent to your mailbox. Open your mailbox and read the mail.
- You can find the activation letter in your E-mail box. Click the hyperlink.

- 7. The link directs you to a login page. Click **login**.
- 8. Enter the user name and password then click **Login**.

🎯 Dyn	DNS			User	P and	Loge
- /	About	Sanicas	Account	Support	LottParent?-1	lan Va Nor
My Account						
Create Account	Create A	ate Account				
Login	Please complete	he form below to create	e your account. You wil	l receive an e-mail conta	ining instructions to a	activate your account. If
Lost Password?	you do not follow	hese directions within	40 hours, you will need	to recreate your account		
	1	it is abongly recomm	ended that you visit this pag	e provide. You are not owned	By visiting this page secur	why.
	Acceptable	Use Policy				
	1. ACKNOWLED All : set :	ervices provided provided to you (forth in this Acc	NCE OF TERES OF 5 by Dynamic Netwo the "Hember") und eptable Use Polic	ERVICE rk Services, Inc. Her the Terms and y (*AUP*) and any by DynOS. The	Conditions other	<
		ree to the Acceptable (kor couprises	

Username
Username account
Your usemame will be used to login to your account and make changes.
E-mail Address
E-mail Address account@asus.com Confirm E-mail Address: account@asus.com
The e-mail address you reter must be visible festionistics to activate your account will be send to the e-mail address provided. You must wave this address carrent. Any accounts with involid e-mail addresses are subject to removal without warning. We da not sell our list t anyone. Read more about our <u>protecy palicy</u> .
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.

Account Created

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

ou should receive the confirmation e-mail within a few minutes. Please make certain that your spam filtering allows messages from upport@dyndns.com to be delivered. If you have not received this e-mail within an hour or so, request a <u>password reset</u>.

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

Your DynDNS user account 'account' has been created. You must visit the confirmation address below within 48 hours of the time this e-mail was sent to complete the account creation process.

Our basic service offerings are free, but they are supported by our premium services. See http://www.dyndms.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/hbNtk#ZBNhJaYM4emvCrqA

he account "account" has been confirmed. You can no<mark>w <u>login</u> a</mark>nd 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, change to services, and important system maintenance/status notifications. To subscribe, simply send an e-mail to <u>announce-</u> ubscribedPite funding and



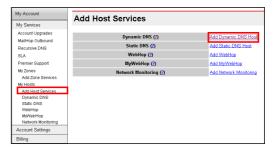
- 9. After logging in, you can see this welcome message.
- 10. Select Services tab.

Logged In

You are currently logged in as: account (Logout)

🛞 Dynl	DNS					Logged in Uner WL65OpE My Sentors - Settings - Log Out
	About	Sevices	Account	Support	News	
Senices	Services					
DNS Services	Services					
Domain Registration						offer superior domain name
Mail Services	services (DNS), hi	igh quality domain man	agement, world-class e	mail services, web red	irection, and network	ork monitoring. All of our ather than a call center reading
Network Monitoring	a script off of a sc	7840.	y a-mail or privile where	log there is a tobal	trained engineers	and the state of the state of the state of
Web Redirection						
Account Upgrades	DNS Servic	29				
Pricing	Secondary Recursive Dynamic D Static DNS	DNS - Add reliability to DNS - Ensure DNS res INS - A free DNS service	management tool for yo o your own nameservets olution for your DNS qu ce for those with dynami for those with static IP a cTLDs and gTLDs	ries c IP addresses		
	Domain Re	gistration				
		gistration - Register ne <u>ansfer</u> - Escape poor q				

11. Click Add Dynamic DNS Host .



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



13. 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
Mail Exchanger:	None
Backup MX:	N

14. Fill the account information into the DDNS setting fields of your wireless router.

DDNS Setting

Save & Restart

Please click SaveRestart button to continue

Dynamic-DNS (DDNS) allows you to export your server to Internet with an unique name, even though you have no static IP address. Currently, serveral DDNS clients are embedded in WLS65gM. You can click Free Trial below to start with a free trial account.

WWW.DYNDNS.ORG	Y Free Trie
account	
•••••	
account.dyndns.org	
⊂ Yes [●] No	
Update	
	WWW.DYNDNS.ORG account account.dyndns.org

15. Click Finish.

Restore Finish Apply

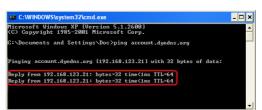
Save&Restart will save all setting you have changed to ASUS Wireless Router and restart it.

Save&Restart

- Click Save & Restart to restart the wireless router and activate the settings.
- Verify whether DDNS is working. Click Start menu and select Run. Type cmd and click OK to open the CLI console.



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



6) Setting up Bandwidth Management

Bandwidth Management provides a mechanism that controls the traffic of you network. To set up bandwidth management:

 Click Basic Config page in Bandwidth Management folder. In this page you can see four buttons including Gaming Blaster, Internet Application, 500W FTP Server, and VOIP/Video Streaming. In this page, you can click each item to set its priority higher. After you click each item, the letters on the button turns yellow (see figures below) and the green bar behind it automatically grows longer, indicating its bandwith status is the first priority. Click Finish and Apply to complete the configuration. The following figures shows different bandwith priority settings:

Gaming Blaster

Bandwidth Management - Band	lwidth On Demar	nd
Gaming Rissier	Internet Application	VOIP/Video Streaming
Under Gaming Blaster, RT-N15 will h can then enjoy latency-free gaming		first priority. You
	Priority	
Low Gaming Blaster	Priority	High
	Priority	High
Gaming Blaster	Priority	High
Gaming Blaster	Priority	High

Internet Application

Bandwidth Management - I	Bandwidth On Demand
Gaming Blaster	internet Application Streaming
Under this mode, e-mail, web be handled at first priority.	browsing, and other Internet applications will
	D.1. 11
	Priority
Low Gaming Blaster	Priomy High
	-
Gaming Blaster	-
Gaming Blaster	-



VOIP/Video Streaming

Bandwidth Management - I	Bandwidth On Demand
	Internet Application
	Priority
Low	High
Gaming Blaster	
Gaming Blaster	
Inernet Application	

2. You can also configure the bandwith manually by clicking "User Specify Services". Input the IP adress, destination port and choose the priority status from the drop-down list.

User Specify Rule List			Add	Del	
A maximum 8 entries can be conf	igured, 1 is the high	nest priority and	8 is the low	est.	
Service Name	Source IP Address	Destination Port	Priority 1 v		
Restore	Finish		A	pply	

(19)

5. Setting up using ASUS utility

1) Utility Installation for RT-N15

1. Click Install ASUS Wireless Router Utilities to run the setup installation program.



3. Click **Next** to install the utility in the designated location.



5. Press Finish to quit the installation program.



2. Click Next to continue.



4. Select a program folder and click Next.



6. Open the WPS Wizard.



2) WPS utility

Ľ

 To use WPS, your should use a wireless router and a wireless LAN card with WPS function.

2) Operating systems and wireless adapters that support WPS:

OS Support	Wireless Adapter Support
	Intel wireless LAN card
Vista 32/64	ASUS 167gv2 driver v3.0.6.0 or later
	ASUS 160N/130N driver v2.0.0.0 or later
	Intel wireless LAN card
XP SP2	ASUS 167gv2 driver v1.2.2.0 or later
	ASUS 160N/130N driver v1.0.4.0 or later
	ASUS LAN card with ASUS WLAN Utility
XP SP1 and 2000	ASUS 167gv2 driver v1.2.2.0 or later
	ASUS 160N/130N driver v1.0.4.0 or later





Follow the instructions to set up your hardware. When done, click **Next**.

V N

Note: Use WPS Wizard with one wireless client at a time. If the wireless client computer cannot discover the wireless router while in WPS mode, shorten the distance between the client and the router.

Push the **WPS** button on the wireless router until its power LED is blinking. When done, click **Next** to continue.



- 1) When running WPS, the Internet connection pauses briefly, then reestablishes the connection.
- 2) If the WPS button is pushed without running the WPS Wizard, the PWR indicator flashes, and the Internet connection pauses briefly and then reestablishes the connection.



Wireless settings, including Network name and passphrase, are generated automatically. You can modify these settings manually. If your wireless router is already configured, select **Preserve original wireless router settings** to use the current value. Click **Next** to continue.



Setup is complete, press Save or print Settings, or Save settings to a USB drive button for future reference. Click Next to connect to the Internet.

If you need to use a USB drive to add other devices to the network, click **Save settings to a USB flash drive**.

 Plug a USB flash drive into a USB port on your computer, and then select the drive from the dropdown list. When done, click **Next** to continue.



 Locate the SetupWireless.exe from the USB drive, and double-click to run it. Click Yes to add this computer to the wireless network. Remove the USB flash drive from this computer, and then plug to the computer that you want to add to the wireless network.



4) Click OK to exit the Wireless Network Setup Wizard.

ork RT-N15 N



Conserts frame Conserts frame To state To state to the symptotic transmit State of the table of the state of the state

You have connected to the wireless router. If you need to configure the Internet settings, click **Setup** to open the web browser. Click **Finish** to exit the **WPS Wizard**.

3) Firmware Restoration

This utility will automatically search out fialed ASUS Wireless Routers and upload a firmware that you specify. The process takes about 3 to 4 minutes and during this process the PWR, AIR, and WAN LEDs will remain lit while the LAN LED will flash slowly.

The Fireware Restoration utility is an emergency rescue tool to restore a ASUS Wireless Router which has failed during a previous firmware upload. A failed firmware upgrade will cause the ASUS Wireless Router to enter a failure mode, waiting for the user to use the Firware Restoration utility to find and upload a new firmware. This is not a firmware upgrade utility and cannot be used on a working ASUS Wireless Router. Normal firmware upgrades must be done through the web manager.

la Firmware Restoration	
Eilename:	Browse
Status Once you have specified a file, click the "Upload" button.	
<u>U</u> pload <u>C</u> lose	

Using a Hub

If you have problems upload a firmware while using a network hub, try connecting your computer directly to the LAN port. Either 10Base-T or 100Base-TX connections will work.

6. Configure RT-N15 under Vista OS

The Windows Simple Config function, which is preinstalled in the ASUS RT-N15, enables the device to be configured via WCN Net process of Windows Vista.

Note: The WCN Net process of Windows Vista can only discover the device when it is not configured and is in the default settings state. If the device is configured, you have to set up the device by WEB or EZsetup. You can also push the Reset button and then begin WCN-NET setup.

1) Configuring the device

Follow the steps below to configure the device using WCN-Net process of Windows Vista:

- 1. Connect the device to your PC and power on it.
- 2. Click Start > Network from the Vista desktop. The Network screen appears.
- 3. Double-click ASUS Wireless Router.



4. A screen prompts you to enter the PIN, which is located on the sticker posted on the device. Enter the PIN in the **PIN** box, then click **Next**.

	- 8
Configure a WCN device	
Type the PIN for the selec	ted device
To configure this device for use information that came with the	on your network, type the PIN. You can find the PIN in the device or on a sticker on the device.
PIN:	
12345670	
Display characters	
	Next Canc

5. Give the network a name and type it in the Network name box, then click Next.

Configure a WCN device	
Give your network a name	
Choose a name that people who connect to your network will r	ecognize
Network name (SSID):	
ASUS_VISTA_Network	
You can type up to 32 letters or numbers.	
	<u>N</u> ext Cancel

6. A Passphrase is generated for WPA security for the network. Click Next from this screen.

83	Configure a WCN device
2	Configure a WCN device
	Help make your network more secure with a passphrase
	Windows will use the passphrase provided below to generate a <u>WPA</u> security key for you. The first time that people connect to this network, they will need the passphrase.
	Passphrase:
	NGo4X6Lqv4LCE1JZ6aQ6
	The passphrase must be at least 8 characters and cannot begin or end with a space.
	☑ Display characters
Γ	<u>Create a different passphrase for me</u>
	Show advanced network security options
L	Next Cance

If you want to create a different passphrase, click **create a different passphrase** for me. If you want to use security method other than WPA-Personal, click **Show advanced network security options**.

The screens for **Create a different passphrase** and **Security methods** are shown in the next page.

Create a different passphrase

Configure a WCN device
Choose advanced network security options
We recommend using Wi-Fi Protected Access 2 (WPA2-Personal) because it provides better security, but it is not supported by devices made before 2001.
Security method:
WPA-Personal 👻
Security key or passphrases
M8d8K2IjR4t3D4hafUvk1U
☑ Display characters
Create a different security key or passphrase for me
Next Canc

Four security methods

We recommend using Wi-Fi Protected Access 2 (WPA2-Person security, but it is not supported by devices made before 2001.	
Security method:	
WPA-Personal	
WPA-Personal	
WPA2-Personal	
WEP No Security	
☑ Display characters	
Create a different security key or passphrase for me	
create o anterent security key of passpirase for the	

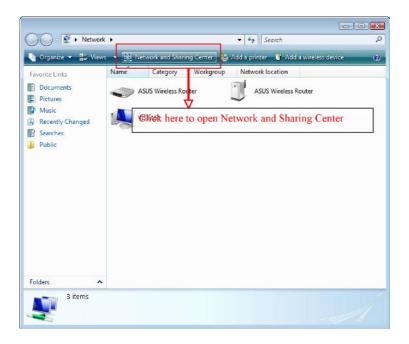
7. Click **Next** from the above screens after the configuration is completed. The complete configuration screen appears as shown below. Click **Close** to finish the process and exit.



2) Setting up the network sharing center

Follow the steps below to set up a sharing center to allow the network users to share printer, file and media.

- 1. Connect the device to your PC and power it on.
- 2. Click Network and Sharing Center in the navigation bar. The Network and Sharing Center screen appears.

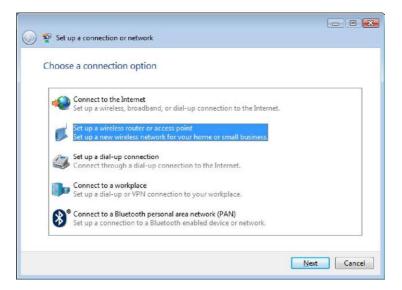


RT-N15 Wireless Router User Manual

	Network and Sharing Center	▼ 47 Search	
Tasks View computers and devices	Network and Sharing Co	enter	View full map
Connect to a network Set up a connection or network		💐	- 0
Manage net fork connections Diagnose an Trepair	VISTA64 (This computer)	ASUS	Internet
Click here to setu	p a network.	Local only	Customize
1	Connection	Local Area Connection	View status
11.7	3 Sharing and Discovery		
	Network discovery	♀ On	
	Network discovery File sharing	o On o On	
See also	File sharing	o On	() ()
See also Biuetooth Devices	File sharing Public folder sharing	o On ♦ Off	() () () ()
and the second second	File sharing Public folder sharing Printer sharing	 On Off Off (no printers installed) 	() ()

3. Click Set up a wireless router or network.

4. Choose Set up a wireless router or access point, then click Next.



5. Click Next.

🚱 🍄 Set up a wireless router or access point
Set up a home or small business network
If you have multiple computers in your home or business, you can set up a network to connect to them. What do I need to set up a network?
This wizard helps you:
- Configure a wireless router or access point
- Set up file and printer sharing
 Save network settings and get instructions for connecting other computers and devices to your network.
- The wizard will make this a private network
Depending on your network hardware, some of the options above might not be available.
Other activities:
Connect to a network
Set up file and printer sharing
Next Cancel

6. In the screen that appears, type a network name in the **Network name** box, then click **Next**. A passphrase is generated for the WPA security.

🚱 🍄 Set up a wireless router or access point	
Give your network a name	
Choose a name that people who connect to your network will recognize	
Network name (SSID):	
ASUS_VISTA_Network	
You can type up to 32 letters or numbers.	
	Next Cancel

 Click Next. If you want to use security methods other than WPA-Personal, click Show advanced network security options.

Y Set up a wireless router or access point	
Help make your network more secu	ire with a passphrase
Windows will use the <u>passphrase</u> provided belo time that people connect to this network, they	by to generate a \underline{WPA} security key for you. The first will need the passphrase.
Passphrase:	
9h3AxP3AqFH9V2hnNMTEY4	
The passphrase must be at least 8 characters ar	nd cannot begin or end with a space.
Display characters	
Create a different passphrase for me	
Show advanced network security options	
	Next Cancel

8. Choose a security method and click Next.

Y Set up a wireless router o	access point	
Choose advanced netv	ork security options	
	rotected Access 2 (WPA2-Perso ed by devices made before 2001	
Security method:		
WPA-Personal	-	
WPA-Personal WPA2-Personal		
WEP No Security		
Display characters		
Create a different security key	or pacephrase for me	
create a uncrent security key	or passpinase for the	
		1 contraction of the second

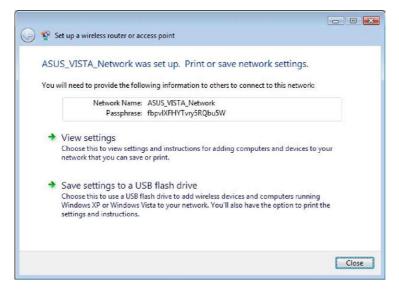
9. A screen prompts you to enter the PIN for the device. Enter the PIN, which is located on the sticker posted on the device, then click **Next**.

	😵 Set up a wireless router or access point	- • 💌
	Type the PIN for ASUS Wireless Router	
	To configure this device for use on your network, type the PIN. You can find the PIN in the information that came with the device or on a sticker on the device.	2
	PIN:	
	12345670	
3	V Display characters	
	Next	Cancel

10. Choose a file and printer sharing option and click Next.

Set up a wireless router or access point
Choose file and printer sharing options
🗑 💿 Do not allow file and printer sharing
You can set up file and printer sharing later by going to Network and Sharing Center in Control Panel.
🝘 🔿 Allow sharing with anyone with a user account and password for this computer
Files in your Public folder and shared printers attached to this computer will be accessible.
🕐 🔿 Allow sharing with anyone on the same network as this computer
Files in your Public folder and shared printers attached to this computer will be accessible.
Keep the custom settings I currently have
Tell me more about file and printer sharing
Next Cancel

A screen appears showing that the set up is complete as shown below.



11. From the above screen you can choose to View settings or, Save settings to a USB flash drive. The respective screens are shown below.

View settings screen





Save settings to a USB flash drive screen

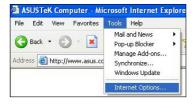
12. When Save settings to a USB flash drive screen appears, plug a USB flash drive into your computer, then select the drive from the Save settings to box and click Next. The settings starts to be saved into the USB drive.

After the saving process is completed, a screen appears to instruct you to add computer or other devices into the network. Follow the instructions to add computers and devices into your network.

Set up a wireless router or access point
To add a device or computer, follow these instructions
1 Remove the USB flash drive from this computer.
2 Insert the USB flash drive into a USB port on the device or the computer. (Computers must be running Windows XP or Windows Vista.)
3 For devices, follow the instructions in the information that came with the device, or on the LCD of the device, if applicable.
For more detailed instructions, click here.
Repeat steps 2 and 3 for each device or computer that you want to add.
Close

7. Troubleshooting

Cannot access to web browser for router configuration



1. Open a web browser and open "Internet Options" dialog box.



2. Click on "Delete Cookies" and "Delete Files".

Cannot Establish Connection via Wireless

Out of Range:

- Put the router closer to the wireless client.
- · Try to change the channel setting.

Authentication:

- · Use wired connection to connect to router.
- · Check the wireless security setting.
- Do the hard reset on the wireless router by pressing the Reset button on the rear panel for more than 5 seconds.

Couldn't find the router:

- Do the hard reset on the wireless router by pressing the Reset button on the rear panel for more than 5 seconds.
- · Check the setting in the wireless adapter such as SSID and encryption setting.

Cannot get access to the Internet via wireless LAN adapter

- · Move the router closer to the wireless client.
- · Check whether the wireless adapter is connected to the correct AP.
- Check whether the wireless channel in use conforms to the channels available in your country/ area.
- · Check encryption setting.
- · Check whether the ADSL or Cable connection is correct.
- · Retry using another Ethernet cable.

Internet is not accessible

- · Check the lights on ADSL modem and the Wireless Router.
- Check whether the "WAN" LED on the Wireless Router is ON. If the LED is not ON, change the cable and try again.

When ADSL Modem "Link" light is ON (not blinking), this means Internet Access is Possible.

- · Restart your computer.
- · Refer to the Quick Setup Guide of the wireless router and reconfigure the settings.
- · Check whether the WAN LED on the router is ON or not.
- · Check wireless encryption settings.
- Check whether the computer can get the IP address or not (via both wired network and wireless network).
- Make sure your Web browser is configured to use the local LAN, and is not configured to use a proxy server.

If the ADSL "LINK" light blinks continuously or stays off, Internet access is not possible - the Router is unable to establish a connection with the ADSL network.

- · Make sure your cables are all correctly connected .
- Disconnect the power cord from the ADSL or Cable modem, wait a few minutes, then reconnect the cord.
- · If the ADSL light continues to blink or stays OFF, contact your ADSL service provider.

Network name or encryption keys are forgotten

- · Try to setup the wired connection for setup the wireless encryption again.
- Do the hard reset on the wireless router by pressing the Reset button on the rear panel for more than 5 seconds.

How to reset to defaults

The following are factory default values. If you push the Restore button on the back of the ASUS Wireless Router for over 5 seconds, or click the "Restore" button on the "Factory Default "

page under " Advanced Setup", the following default settings overwrite the old settings on your wireless router.

User Name:	admin	Subnet Mask:	255.255.255.0
Password:	admin	DNS Server 1:	192.168.1.1
Enable DHCP:	Yes (if plug in Wan cable)	DNS Server 2:	(Blank)
IP address:	192.168.1.1	SSID:	default
Domain Name:	(Blank)		

8. Appendix

FC Warning Statement

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

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Prohibition of Co-location

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

Safety Information

To maintain compliance with FCC's RF exposure guidelines, this equipment should be installed and operated with minimum distance 20cm between the radiator and your body. Use on the supplied antenna.

Declaration of Conformity for R&TTE directive 1999/5/EC

Essential requirements - Article 3

Protection requirements for health and safety - Article 3.1a

Testing for electric safety according to EN 60950-1 has been conducted. These are considered relevant and sufficient

Protection requirements for electromagnetic compatibility - Article 3.1b

Testing for electromagnetic compatibility according to EN 301 489-1 and EN 301 489-17 has been conducted. These are considered relevant and sufficient.

Effective use of the radio spectrum - Article 3.2

Testing for radio test suites according to EN 300 328-2 has been conducted. These are considered relevant and sufficient.

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CE Mark Warning

This is a Class B product, in a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

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Version 2, June 1991

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(44)