

# SAPIDO BRD70n User Manual

## USB To Ethernet AP and Router



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## **FCC Caution**

### **FCC Part 15.19 Caution:**

1. 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
2. This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.
3. Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.

### **IMPORTANT NOTE:**

#### **FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

## **FCC Statement in User's Manual (for class B)**

### **FCC Section 15.105**

#### **"Federal Communications Commission (FCC) Statement"**

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.

## **CE Statement of Conformity**

Our product has been tested in typical configuration by Ecom Sertech Corp and was found to comply with the essential requirement of “Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility” (89/336/EEC; 92/31/EEC; 93/68/EEC)

## **Notice**

This product need to use adapter to provide power , it should avoid to connect to PC or NB USB port

# Chapter 1 Introduction

## 1.1 Hardware Features

Item	Specification
<b>Key Components</b>	
<b>Main Processor</b>	Realtek RTL8196EU 400MHz Network Processor
<b>Flash</b>	8Mbytes Serial Flash
<b>RAM</b>	32Mbytes SDRAM
<b>Wireless Chip</b>	Realtek RTL8188ER 1T1R single chip
<b>Communication Interfaces</b>	
<b>LAN Port</b>	1 x 10/100Mbps RJ45 with auto MDI/MDIX
<b>USB Port</b>	Power supply
<b>Wireless</b>	IEEE 802.11b/g/n 2.4GHz 1T1R
<b>Others</b>	
<b>Wireless Antenna</b>	Internal x1
<b>Transmission Power</b>	802.11b: 9.54dBm 802.11g: 9.49dBm 802.11n HT20: 9.66dBm 802.11n HT40: 9.81dBm
<b>Receive Sensitivity</b>	11Mbps : TYP. -83dBm @ 8% PER 54Mbps: TYP. -70dBm @ 10% PER 11n (20MHz): TYP. -64dBm @ 10% PER 11n (40MHz): TYP. -61dBm @ 10% PER
<b>Button</b>	<b>Reboot/Reset button:</b> push 1 second for restart: push 10 seconds for resetting to system default. <b>WPS button:</b> push for starting WPS process
<b>Operation Requirement</b>	Operating Temp.: 0 to 40 (32 to 104 ) Storage Temp.: -20 to 70 (-4 to 158 ) Operating Humidity: 10% to 85% Non-Condensing Storage Humidity: 5% to 90% Non-Condensing
<b>Power Supply</b>	Power Adapter DC5V/0.5A
<b>Dimensions</b>	69 (L) x 26 (W) x 19.6 (H) mm

## 1.2 Product Appearance

### LED Indicator Status Description:

LED	Function	Color	Status	Description
<b>Power x 1</b>	Power indicator	<b>Green</b>	On	Power is being applied to this product
<b>Wireless /WPSx 1</b>	Wireless / WPS activity	<b>Green</b>	On	Wireless is connected
			Blinking 30ms	Wireless Tx/Rx activity
		<b>Reddish Orange</b>	Blinking 30ms	WPS function in progress
<b>RJ45 x 1</b>	LAN port activity	<b>Green</b>	On	100Mbps Ethernet is connected
			Blinking 30ms	100Mbps Ethernet Tx/Rx activity
		<b>Green</b>	On	10Mbps Ethernet is connected
			Blinking 120ms	10Mbps Ethernet Tx/Rx activity



## Chapter 2 System and Network Setup

The BRD70N is an easy to setup and wireless device for various application and environment, especially for large installs such as hotels, offices space, warehouses, hot-spots and more.

To begin with BRD70N , you must have the following minimum system requirements. If your system can't correspond to the following requirements, you might get some unknown troubles on your system.

- λ Internet Account for XDSL/Cable Modem
- λ One Ethernet (10/100mbps) network interface card.
- λ TCP/IP and at least one web browser software installed (E.g.: Internet Explorer, Firefox, Safari、 Chrome latest version).
- λ 802.11b、 g、 n wireless adapter for wireless mobile clients.
- λ Recommended OS: WinXP, Visata or Win7 / Linux.

### 2.1 Build Network Connection

Administrator can manage the settings for WAN, LAN, Wireless Network, NTP, password, VPN, Firewall, etc.

Please confirm the network environment or the purpose before setting this product.

### 2.2 Connecting BRD70N

Prepare the followings before the connection:

- λ PC or Notebook for setup
  - λ Ethernet cable
1. Make sure you are under "Router Mode".
  2. Connect BRD70N to xDSL/ Cable modem with the Ethernet cable, WAN to LAN.
  3. Turn on your Computer.



## 2.3 Network setup

After the network connection is built, the next step is setup the router with proper network parameters, so it can work properly in your network environment. Before you connect to the wireless router and start configuration procedures, your computer must be able to get an IP address from the wireless router automatically (use dynamic IP address). If it's set to use static IP address, or you're unsure, please follow the below instructions to configure your computer with dynamic IP address:

If the operating system of your computer is....

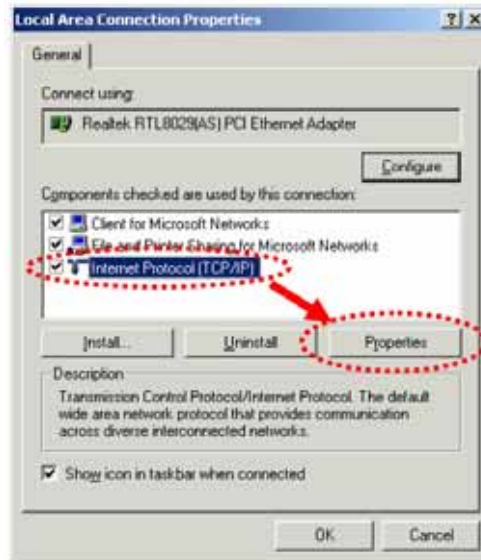
Windows 2000 - please go to section 2.3.1

Windows XP - please go to section 2.3.2

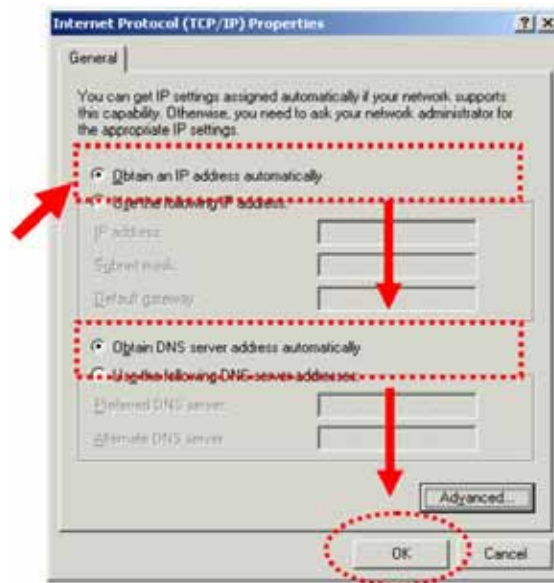
Windows Vista/Win7 - please go to section 2.3.3

### 2.3.1 Windows 2000

Click "Start" button (it should be located at lower-left corner of your computer), then click control panel. Double-click Network and Dial-up Connections icon, double click Local Area Connection, and Local Area Connection Properties window will appear. Select "Internet Protocol (TCP/IP)", then click "Properties".

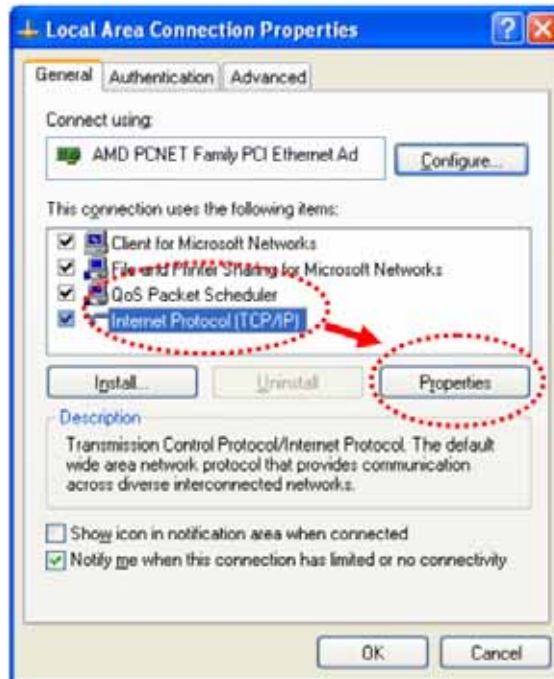


1. Select “Obtain an IP address automatically” and “Obtain DNS server address automatically”, then click “OK”.

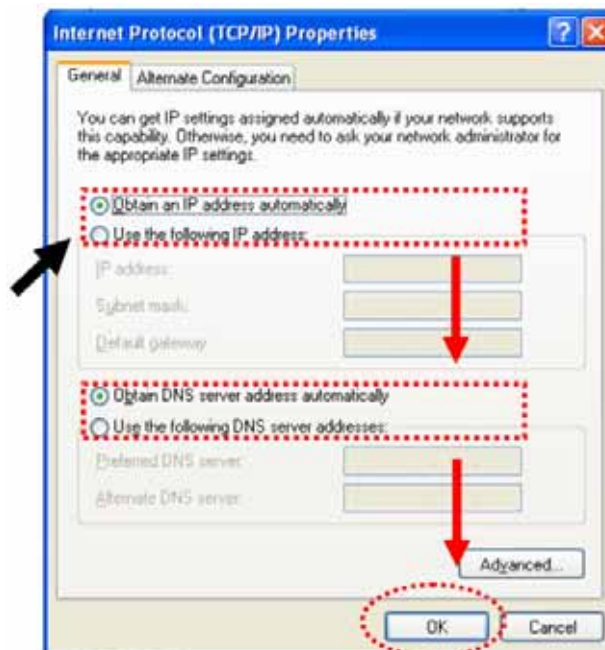


### 2.3.2 Windows XP

1. Click “Start” button (it should be located at lower-left corner of your computer), then click control panel. Double-click Network and Internet Connections icon, click Network Connections, then double-click Local Area Connection, Local Area Connection Status window will appear, and then click “Properties”.



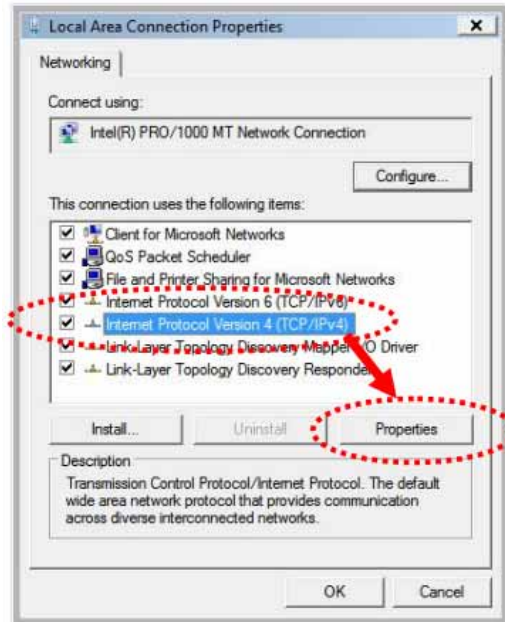
2. Select “Obtain an IP address automatically” and “Obtain DNS server address automatically”, then click “OK”.



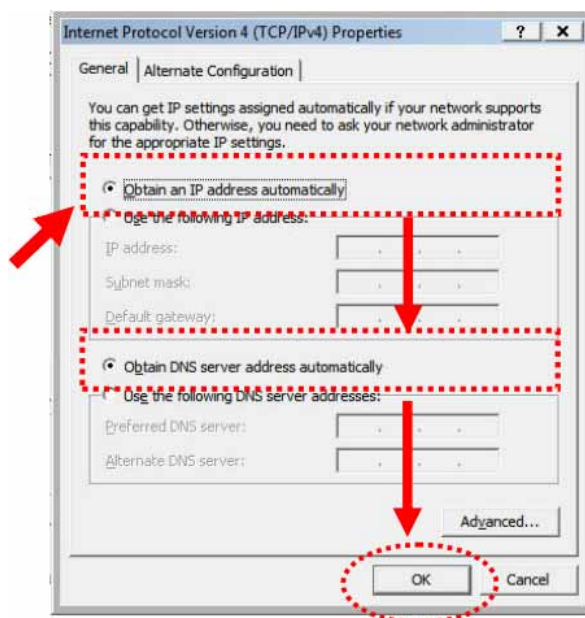
### 2.3.3 Windows Vista / Windows 7

1. Click “Start” button (it should be located at lower-left corner of your computer), then click control panel. Click View Network Status and Tasks, and then click Manage Network Connections. Right-click Local Area Network, then select “Properties”. Local Area

Connection Properties window will appear, select “Internet Protocol Version 4 (TCP / IPv4)”, and then click “Properties”.



2. Select “Obtain an IP address automatically” and “Obtain DNS server address automatically”, then click “OK”.

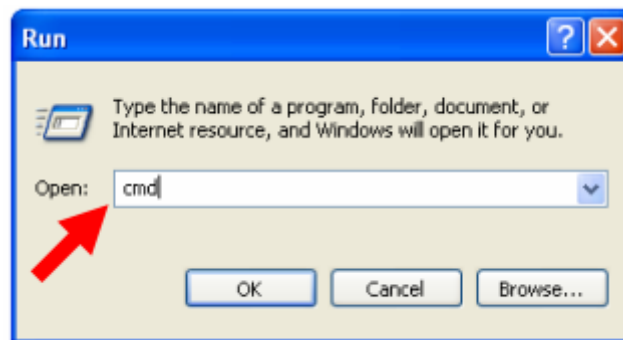


## 2.4 Router IP Address Lookup

After the IP address setup was completed, please clicks “start” → “run” at the bottom-lower corner of your desktop:



Input “cmd”, and then click “OK”.



Input “ipconfig”, then press “Enter” key. Please check the IP address followed by “Default Gateway” (In this example, the gateway IP address of router is 192.168.1.1)



NOTE: If the IP address of Gateway is not displayed, or the address followed by 'IP Address' begins with "169.x.x.x", please recheck network connection between your computer and router, and / or go to the beginning of this chapter, to recheck every step of network setup procedure.

### 2.4.1 Log into Web GUI ( Router mode )

After your computer obtained an IP address from wireless router, please start your web browser, and input the IP address of the wireless router in address bar, and the following message should be shown. Please click "admin" to login the BRD70N .



Enter the User name and Password in to the blank and then Click **Login**. The default values for User Name and Password are **admin** (all in lowercase letters).



Language :	English	▼
User Name :	admin	(default:admin)
Password :	*****	(default:admin)
	Login	Change Password

Users can set or change user name and password used for accessing the web management interface in this section.

## Change Password

User Name:

New Password:

Confirmed Password:

Input User Name and New Password, then input Confirm Password again.

## Status

SSID: SAPIDO\_BRD70n\_521009

Encryption: None

BRD70n\_521009

Client Number: 1

WAN Configuration	
<b>WAN status:</b>	Getting IP from DHCP server <input type="button" value="Start"/>
<b>WAN IP Address:</b>	0.0.0.0
<b>DNS 1:</b>	0.0.0.0
<b>DNS 2:</b>	0.0.0.0
<b>DNS 3:</b>	0.0.0.0
<b>Attain IP Protocol:</b>	DHCP
<b>Gateway:</b>	0.0.0.0
<b>WAN Setting:</b>	<a href="#">Forwarding Setting...</a>

## Chapter 3 Internet Connection

This Chapter describes how to setup BRD70N to the internet. The BRD70N is delivered with



the following factory default parameters.

*Default IP address: 192.168.1.1*

*Default IP subnet mask: 255.255.255.0*

*Web login user name: admin*

*Web login password: admin*

### 3.1 Using as a broadband router

1. Open a Web browser, and enter <http://192.168.1.1> (Default Gateway) into the blank.



2. Enter the User name and Password into the blank and then click **Login**. The default values for User Name and Password are **admin** (all in lowercase letters).



Language :	English	▼
User Name :	admin	(default:admin)
Password :	.....	(default:admin)
	Login	Change Password

### 3.2 Home button menu



Click Home button icon to enter MENU as below.



Item	Description
<b>Internet Setup</b>	There are several different method to access Internet , PPPoE、DHCP、 Static IP、 PPTP、 L2TP、 WiFi ISP
<b>Wireless Basic Settings</b>	Do wireless basic configuration : SSID、 encryption
<b>DDNS</b>	You can assign a fixed host and domain name to a dynamic Internet IP address. Each time the router boots up, it will re-register its domain-name-to-IP-address mapping with the DDNS service provider.
<b>Firmware Upgrade</b>	This function allows you upgrade the BRC70X firmware to new version. Please note do not power off the device during the upload because it may crash the system.
<b>Time Zone</b>	You can maintain the system time by synchronizing with a public time server over the Internet.
<b>DoS</b>	Denial of Service

<b>Remote management</b>	This page allows you to access the GUI on WAN.
<b>Advance Setup</b>	Advance setting menu
<b>Status</b>	You could check WAN, LAN, Client network in status.
<b>Factory Default</b>	You could reset the current configuration to factory default.
<b>Reboot</b>	This function is used to reboot
<b>Logout</b>	This page is used to logout.

### 3.3 Internet Setup

Click **Internet Setup** icon to enter WAN setup as below. The Internet Setup is depended on the service that you contract with the provider. The BRD70N provides five selections for the Internet Mode type, **PPPoE**, **DHCP**, **Static IP**, **PPTP** and **L2TP** and **HotSpot**. Check with your ISP if you don't know the WAN type.



### 3.3.1 PPPoE

**PPPoE**

**PPPoE user name and password**

User Name:

Password:

**Wireless Setup**

Wireless AP  Enable  Disable

SSID:

Encryption:

Item	Description
User Name	Input your user name provided by your ISP. If you don't know, please check with your ISP.
Password	Input the password provided by your ISP.
Wireless AP	Turn on/off wireless
SSID	Service Set identifier, users can define to any or keep as default.
Encryption	Select wireless encryption type form the drop-down list.

### 3.3.2 DHCP

## DHCP

**MAC setting**

MAC type             Universal    Specific

**Wireless Setup**

Wireless AP         Enable    Disable

SSID:               

Encryption:         ▼

WPA\_Pre-Shared  
Key:                

Item	Description
MAC type	Select "Universal" or "Specific"
Wireless AP	Turn on/off wireless
SSID	Service Set identifier, users can define to any or keep as default.
Encryption	Select wireless encryption type form the drop-down list.

### 3.3.3 Static IP

## Static IP

**IP Address setting**

IP Address:

Subnet Mask:

Gateway:

DNS:

**Wireless Setup**

Wireless AP  Enable  Disable

SSID:

Encryption:

Item	Description
IP Address	Enter the IP address which is provided by your ISP.
Subnet Mask	Please enter the Subnet Mask address
Gateway	Input ISP Default Gateway Address.
DNS	Input DNS information which is provided by your ISP
Wireless AP	Turn on/off wireless
SSID	Service Set identifier, users can define to any or keep as default.
Encryption	Select wireless encryption type form the drop-down list.

### 3.3.4 PPTP

## PPTP

**IP Address setting**

Address Mode:  Dynamic  Static

Server IP Address:

User Name:

Password:

MTU Size:  (1400-1460 Bytes)

Enable MPPE Encryption

Enable MPPC Compression

**Wireless Setup**

Wireless AP:  Enable  Disable

SSID:

Encryption:

WPA\_Pre-Shared Key:

Item	Description
<b>Address Mode</b>	Select " <b>Dynamic</b> " or " <b>Static</b> "
<b>IP Address</b>	Input your IP address or domain name
<b>Gateway</b>	Input ISP Default Gateway Address.
<b>Server IP Address</b>	Input your server IP address provided by your ISP. If you don't know, please check with your ISP.
<b>User Name</b>	Input PPTP account provided by your ISP.
<b>Password</b>	Input the password provided by your ISP.
<b>MTU Size</b>	Maximum Transmission Unit. Usually provide by computer operation systems (OS). Advanced users can set it manually.
<b>Enable MPPE Encryption</b>	Microsoft Point-to-Point Encryption (MPPE) provides data security for the PPTP connection that is between the VPN client and VPN server.
<b>Enable MPPC Compression</b>	Microsoft Point-to-Point Compression (MPPC) is a scheme used to compress Point-to-Point Protocol (PPP) packets between Cisco and Microsoft client devices. The MPPC algorithm is designed to optimize bandwidth utilization in order to support multiple simultaneous connections. The MPPC algorithm uses a Lempel-Ziv (LZ) based algorithm with a continuous history buffer, called a dictionar



<b>Wireless AP</b>	Turn on/off wireless
<b>SSID</b>	Service Set identifier, users can define to any or keep as default.
<b>Encryption</b>	Select wireless encryption type form the drop-down list.

### 3.3.5 L2TP

Item	Description
<b>Address Mode</b>	Select " <b>Dynamic</b> " or " <b>Static</b> "
<b>IP Address</b>	Input your IP address or domain name
<b>Gateway</b>	Input ISP Default Gateway Address.
<b>Server IP Address</b>	Input your server IP address provided by your ISP. If you don't know, please check with your ISP.
<b>User Name</b>	Input PPTP account provided by your ISP.
<b>Password</b>	Input the password provided by your ISP.
<b>MTU Size</b>	Maximum Transmission Unit. Usually provide by computer operation systems (OS). Advanced users can set it manually.
<b>Wireless AP</b>	Turn on/off wireless
<b>SSID</b>	Service Set identifier, users can define to any or keep as default.

<b>Encryption</b>	Select wireless encryption type form the drop-down list.
-------------------	--

## Chapter 4 GUI Function Setup

### 4.1 Wireless basic settingAP

This page is used to configure the parameters for wireless LAN clients which may connect to your Access Point. Here you may change wireless encryption settings as well as wireless network parameters



Item	Description
Disable Wireless	Turn on/off wireless
SSID	Service Set identifier, users can define to any or keep as default.
Encryption	Select wireless encryption type form the drop-down list.

### 4.2 DDNS

You can assign a fixed host and domain name to a dynamic Internet IP address. Each time the router boots up, it will re-register its domain-name-to-IP-address mapping with the DDNS service provider. This is the way Internet users can access the router through a domain name instead of its IP address.

**Note:** make sure that you have registered with a DDNS service provider before enabling this feature.

## Dynamic DNS

**Enable DDNS**

Service Provider :  << dyn dns v

Domain Name :

User Name/Email :

Password/Key :

*Note:*  
 For TZO, you can have a 30 days free trial [here](#) or manage your TZO account in [control panel](#)  
 For DynDNS, you can create your DynDNS account

Please enter Domain Name, User Name/Email, and Password/Key. After entering, click on Apply Changes to save the setting, or you may click on Reset to clear all the input data.

Item	Description
<b>Enable/Disable DDNS</b>	Select enable to use DDNS function. Each time your IP address to WAN is changed, and the information will be updated to DDNS service provider automatically.
<b>Service Provider</b>	Choose correct Service Provider from drop-down list, here including DynDNS, TZO, ChangeIP, Eurodns, OVH, NO-IP, ODS, Regfish embedded in BRD70n.
<b>User Name/Email</b>	User name is used as an identity to login Dynamic-DNS service.
<b>Password/Key</b>	Password is applied to login Dynamic-DNS service.

### 4.3 Firmware Upgrade

This function can upgrade the firmware of the router. There are two methods for user upgrade firmware: Auto upgrade and Manual upgrade.

**Caution:** To prevent that firmware upgrading is interrupted by other wireless signals and causes failure. We recommend users to use wired connection during upgrading.

**Note:** The firmware upgrade will not remove your previous settings.

#### 4.3.1 Auto upgrade

It provide auto detect new firmware from Internet, and user can select to upgrade new version or not.



The screenshot shows the 'Firmware Upgrade' interface. At the top, the title 'Firmware Upgrade' is displayed in a large, bold, dark red font. Below the title, there are two radio buttons: 'Auto upgrade' (which is selected) and 'Manual upgrade'. Underneath, the text 'Now Version : Ver0.0.7' is shown. Below that, 'New Version :' is followed by a 'Refresh' button. At the bottom, the text 'Upgrade Firmware ?' is displayed above a 'Yes' button.

#### 4.3.2 Manual upgrade

If you download firmware from website, you can upgrade firmware manual as below.



The screenshot shows the 'Firmware Upgrade' interface. At the top, the title 'Firmware Upgrade' is displayed in a large, bold, dark red font. Below the title, there are two radio buttons: 'Auto upgrade' and 'Manual upgrade' (which is selected). Below the radio buttons, the text 'Select File:' is followed by a text input field and a '瀏覽...' (Browse...) button. Below the input field, there are 'Upload' and 'Reset' buttons.

#### 4.4 Time Zone

Users can select time zone and synchronize the local clock on the router.



The screenshot shows the 'Time Zone Setting' interface. At the top, the title 'Time Zone Setting' is displayed in a large, bold, dark red font. Below the title, the text 'Time Zone Select:' is followed by a dropdown menu showing '(GMT+08:00)Taipei'. Below the dropdown menu, there are 'Save', 'Cancel', and 'Finish' buttons.

Item	Description
------	-------------

<b>Time Zone Select</b>	Please select the time zone.
-------------------------	------------------------------

#### 4.5 DoS

It provide 2 kind of Denial of Service: Home and Enterprise

**Denial of Service**

**disable**
 **home**
 **enterprise**

**Home:**

**Denial of Service**

**disable**
 **home**
 **enterprise**

TCP/UDP PortScan      Low Sensitivity

ICMP Smurf

IP Land

IP Spoof

IP TearDrop

PingOfDeath

TCP Scan

TCP SynWithData

UDP Bomb

UDP EchoChargen

Item	Description
------	-------------

<b>Home</b>	Check "Home" to enable DoS function for prevention. You also can check "No Prevention" to disable DoS function.
-------------	---

**Enterprise:**

**disable**   
 **home**   
 **enterprise**

- Whole System Flood : SYN    0    Packets/Second
- Whole System Flood : FIN    0    Packets/Second
- Whole System Flood : UDP    0    Packets/Second
- Whole System Flood : ICMP    0    Packets/Second
- Per-Source IP Flood : SYN    0    Packets/Second
- Per-Source IP Flood : FIN    0    Packets/Second
- Per-Source IP Flood : UDP    0    Packets/Second
- Per-Source IP Flood : ICMP    0    Packets/Second
- Enable Source IP Blocking    0    Block time (sec)
- TCP/UDP PortScan    Low    Sensitivity
- ICMP Smurf
- IP Land
- IP Spoof
- IP TearDrop
- PingOfDeath
- TCP Scan
- TCP SynWithData
- UDP Bomb
- UDP EchoChargen

Item	Description
<b>Enterprise</b>	Check "Enterprise" to enable DoS function for prevention. You also can check "No Prevention" to disable DoS function.

## 4.6 Remote Management

This page allows you to access the GUI on WAN.



**Remote manager**

HTTP Connection Port:

Enable Web Server Access on WAN:  ▾

Item	Description
HTTP Connection Port	Users can access GUI by this port , default is 80
Enable Web Server Access on WAN	Allow user access GUI from WAN side

## 4.7 Status

You could check WAN, LAN, Client network in status.

### WAN Configuration



**Status**

Download  
Sapido  
Cloud

SSID:  
SAPIDO\_BRD  
70n\_521009

Encryption:  
None

BRD70n\_5210  
09

Client Number: 1

**WAN Configuration**

**WAN status:** Getting IP from DHCP server

**WAN IP Address:** 0.0.0.0

**DNS 1:** 0.0.0.0

**DNS 2:** 0.0.0.0


**DNS 3:** 0.0.0.0

**Attain IP Protocol:** DHCP


**Gateway:** 0.0.0.0

**WAN Setting:** [Forwarding Setting...](#)

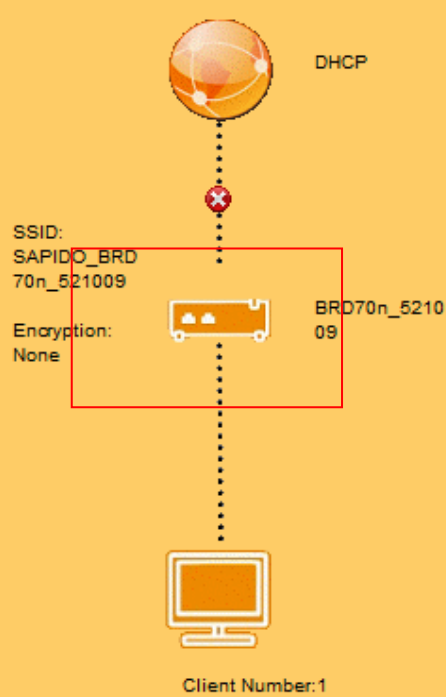
## LAN Configuration



# Status

  
Download  
Sapido  
Cloud

---



SSID: SAPIDO\_BRD70n\_521009

Encryption: None

BRD70n\_521009

Client Number: 1

### LAN Configuration

**LAN IP Address:** 192.168.1.1

**MAC Address:** 00:e0:4c:4a:7c:7b

**Wireless AP**     Enable    Disable

**SSID:**            SAPIDO\_BRD70n\_52

**Encryption:**    None ▾

### WPS Status

**PIN Number:**    99956042

**WPS:**

### Sapido Cloud

**Sapido Cloud**   

**Device Name**    BRD70n\_521009

**Enable Web Server Access on WAN**

## Client Configuration

[Download Sapido Cloud](#)

## Status

**DHCP**

SSID: SAPIDO\_BRD70n\_521009  
Encryption: None

BRD70n\_521009

Client Number: 1

Client List		
IP address	Host name	Blockade
192.168.1.102	James-PC	

Blockade List		
IP address	Host name	Unlock

#### 4.8 Factory Default

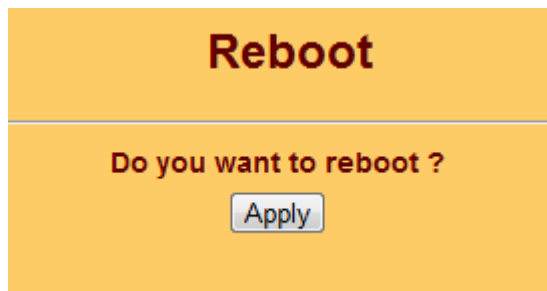
You could reset the current configuration to factory default.

## Factory Default

Are you really want to factory default machine config ?

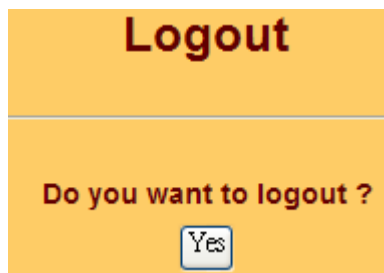
#### 4.9 Reboot

This function is used to reboot



#### 4.10 Logout

This page is used to logout



# Chapter 5 Advance Setup

## 5.1 Internet Mode

### 5.1.1 Internet Setup

Please refer [Internet Setup](#)

## 5.2 IP Config

### 5.2.1 WAN

#### 5.2.1.1 PPPoE

User Name:

Password:

Service Name:

Connection Type:

Idle Time:  (1-1000 minutes)

MTU Size:  (1360-1492 Bytes)

Attain DNS Automatically  
 Set DNS Manually

DNS 1:

DNS 2:

DNS 3:

Clone MAC Address:

Enable IGMP Proxy  
 Enable Ping Access on WAN

Item	Description
User Name	Input your user name provided by your ISP. If you don't know, please check with your ISP.

<b>Password</b>	Input the password provided by your ISP.
<b>Service Name</b>	Input the service name provided by your ISP.
<b>Connection Type</b>	Three types for select: <b>Continues</b> , <b>Connect on Demand</b> , and <b>Manual</b> .
<b>MTU Size</b>	Maximum Transmission Unit. Usually provide by computer operation systems (OS). Advanced users can set it manually.
<b>DNS</b>	Select <b>Attain DNS Automatically</b> . Or select <b>Set DNS Manually</b> , if you want to specify the DNS, and enter the DNS provided by your ISP in DNS 1 2 3.
<b>Clone Mac Address</b>	Some ISPs require MAC address registration. In this case, enter the MAC address registered to the provider to "Clone MAC Address"
<b>Save &amp; Apply</b>	Click on Save to save the setting date, the Apply button for execute current configuration.

### 5.2.1.2 DHCP

Item	Description
<b>Host Name</b>	You can keep the default as the host name, or input a specific name if required by your ISP.
<b>MTU Size</b>	Maximum Transmission Unit. Usually provide by computer operation systems (OS). Advanced users can set it manually.
<b>DNS</b>	Select <b>Attain DNS Automatically</b> . Or select <b>Set DNS Manually</b> , if you want to specify the DNS, and enter the DNS provided by your ISP in DNS 1 2 3.
<b>Clone Mac Address</b>	Some ISPs require MAC address registration. In this case, enter

	the MAC address registered to the provider to "Clone MAC Address"
<b>Save &amp; Apply</b>	Click on Save to save the setting date, the Apply button for execute current configuration.

### 5.2.1.3 Static IP

Item	Description
<b>IP Address</b>	Enter the IP address which is provided by your ISP.
<b>Subnet Mask</b>	Please enter the Subnet Mask address
<b>Gateway</b>	Input ISP Default Gateway Address, .
<b>MTU Size</b>	Maximum Transmission Unit. Usually provide by computer operation systems (OS). Advanced users can set it manually.
<b>DNS</b>	Input DNS information which is provided by your ISP
<b>Clone Mac Address</b>	Some ISPs require MAC address registration. In this case, enter the MAC address registered to the provider to "Clone MAC Address"
<b>Save &amp; Apply</b>	Click on Save to save the setting date, the Apply button for execute current configuration.

### 5.2.1.4 PPTP

**Address Mode:**  Dynamic  Static  
**Server IP Address:**   
**User Name:**   
**Password:**   
**MTU Size:**  (1400-1460 Bytes)  
 Enable MPPE Encryption  
 Enable MPPC Compression  
 Attain DNS Automatically  
 Set DNS Manually  
**DNS 1:**   
**DNS 2:**   
**DNS 3:**   
**Clone MAC Address:**   
 Enable IGMP Proxy  
 Enable Ping Access on WAN

Item	Description
<b>Server IP Address</b>	Input your server IP address provided by your ISP. If you don't know, please check with your ISP.
<b>User Name</b>	Input PPTP account provided by your ISP.
<b>Password</b>	Input the password provided by your ISP.
<b>MTU Size</b>	Maximum Transmission Unit. Usually provide by computer operation systems (OS). Advanced users can set it manually.
<b>Enable MPPE Encryption</b>	Microsoft Point-to-Point Encryption (MPPE) provides data security for the PPTP connection that is between the VPN client and VPN server.
<b>Enable MPPC Compression</b>	Microsoft Point-to-Point Compression (MPPC) is a scheme used to compress Point-to-Point Protocol (PPP) packets between Cisco and Microsoft client devices. The MPPC algorithm is designed to optimize bandwidth utilization in order to support multiple simultaneous connections. The MPPC algorithm uses a Lempel-Ziv (LZ) based algorithm with a continuous history buffer, called a dictionar
<b>DNS</b>	Select <b>Attain DNS Automatically</b> . Or select <b>Set DNS Manually</b> , if you want to specify the DNS, and enter the DNS provided by your ISP in DNS 1 2 3.
<b>Clone Mac Address</b>	Some ISPs require MAC address registration. In this case, enter the MAC address registered to the provider to "Clone MAC



	Address"
<b>Save &amp; Apply</b>	Click on Save to save the setting date, the Apply button for execute current configuration.

### 5.2.1.5 L2TP

**Address Mode:**  Dynamic  Static

**Server IP Address:**

**User Name:**

**Password:**

**MTU Size:**  (1400-1460 Bytes)

**Attain DNS Automatically**  
 **Set DNS Manually**

**DNS 1:**

**DNS 2:**

**DNS 3:**

**Clone MAC Address:**

**Enable IGMP Proxy**  
 **Enable Ping Access on WAN**

Item	Description
<b>Server IP Address</b>	Input your server IP address or Host Name provided by your ISP. If you don't know, please check with your ISP.
<b>User Name</b>	Input PPTP account provided by your ISP.
<b>Password</b>	Input the password provided by your ISP.
<b>MTU Size</b>	Maximum Transmission Unit. Usually provide by computer operation systems (OS). Advanced users can set it manually.
<b>DNS</b>	Select <b>Attain DNS Automatically</b> . Or select <b>Set DNS Manually</b> , if you want to specify the DNS, and enter the DNS provided by your ISP in DNS 1 2 3.
<b>Clone Mac Address</b>	Some ISPs require MAC address registration. In this case, enter the MAC address registered to the provider to "Clone MAC Address"
<b>Save &amp; Apply</b>	Click on Save to save the setting date, the Apply button for execute current configuration.

## 5.2.2 LAN

Use this page to set up the local IP address and subnet mask for your router. Please select **LAN Interface Setup** under the **IP Config** menu and follow the instructions below to enter the LAN setting page to configure the settings you want.

**LAN Interface Setup**

**IP Address:** 192.168.2.79

**Subnet Mask:** 255.255.255.0

**Gateway:** 0.0.0.0

**DHCP:** Server

**DHCP Client Range:** 192.168.2.211 - 192.168.2.212

**DHCP Lease Time:** 60 (1 - 10080 minutes)

**Static DHCP:**

**Domain Name:** BRC76n\_Broadband\_F

**802.1d Spanning Tree:** Disabled

**Clone MAC Address:** 000000000000

Item	Description
<b>IP Address</b>	The default value of LAN IP address is <b>192.168.1.1</b> for this router.
<b>Subnet Mask</b>	Input Subnet Mask, normally it is 255.255.255.0.
<b>Gateway</b>	Input ISP Default Gateway Address. If you don't know, please check with your ISP.
<b>DHCP</b>	Enable or disable DHCP services. The DHCP server will automatically allocate an unused IP address from the IP address pool to the requesting computer if enabled.

<b>DHCP Client Range</b>	Define the DHCP client range and then the DHCP server will assign an IP to the requesting computer from this range. The <b>Show Client</b> will display every assigned IP address, MAC address, and expired time. The default range is 192.168.1.100 - 192.168.1.200.
<b>DHCP Lease Time</b>	IP available time
<b>Static DHCP</b>	This function allows you reserve IP addresses, and assign the same IP address to the network device with the specified MAC address any time it requests an IP address. This is almost the same as when a device has a static IP address except that the device must still request an IP address from the DHCP server
<b>Domain Name</b>	The name of device
<b>802.1d Spanning Tree</b>	<b>IEEE 802.1d Spanning Tree Protocol (STP)</b> is a link layer network protocol that ensures a loop-free topology for any bridged LAN. The main purpose of STP is to ensure that you do not create loops when you have redundant paths in your network. Loops are deadly to a network.
<b>CloneMACAddress</b>	Copy the MAC address from the device you had registered to your ISP if your ISP asks for the specific MAC Address.

### 5.2.3 DDNS

You can assign a fixed host and domain name to a dynamic Internet IP address. Each time the router boots up, it will re-register its domain-name-to-IP-address mapping with the DDNS service provider. This is the way Internet users can access the router through a domain name instead of its IP address.

**Note: make sure that you have registered with a DDNS service provider before enabling this feature.**

## Dynamic DNS

**Enable DDNS**

Service Provider :  << dyn dns v

Domain Name :

User Name/Email :

Password/Key :

*Note:*  
 For TZO, you can have a 30 days free trial [here](#) or manage your TZO account in [control panel](#)  
 For DynDNS, you can create your DynDNS account

Please enter Domain Name, User Name/Email, and Password/Key. After entering, click on Apply Changes to save the setting, or you may click on Reset to clear all the input data.

Item	Description
<b>Enable/Disable DDNS</b>	Select enable to use DDNS function. Each time your IP address to WAN is changed, and the information will be updated to DDNS service provider automatically.
<b>Service Provider</b>	Choose correct Service Provider from drop-down list, here including DynDNS, TZO, ChangeIP, Eurodns, OVH, NO-IP, ODS, Regfish embedded in BRD70N .
<b>User Name/Email</b>	User name is used as an identity to login Dynamic-DNS service.
<b>Password/Key</b>	Password is applied to login Dynamic-DNS service.
<b>Save &amp; Apply</b>	Click on "Save" to save the setting data. The "Apply" button can execute current configuration

## 5.3 IPv6 Config

### 5.3.1 IPv6 basic

No.	IPv6 Address	Pre_Len
br0	<input type="text" value="0000"/> . <input type="text" value="0000"/> . <input type="text" value="0000"/> . <input type="text" value="0000"/> . <input type="text" value="0000"/> . <input type="text" value="0000"/> . <input type="text" value="0000"/> . <input type="text" value="0000"/>	<input type="text" value="/ 0"/>
eth1	<input type="text" value="0000"/> . <input type="text" value="0000"/> . <input type="text" value="0000"/> . <input type="text" value="0000"/> . <input type="text" value="0000"/> . <input type="text" value="0000"/> . <input type="text" value="0000"/> . <input type="text" value="0000"/>	<input type="text" value="/ 0"/>

Item	Description
Br0	LAN IPv6 address
Eth1	WAN IPv6 address

### 5.3.2 IPv6 dhcp

Item	Description
DNS Addr	DNS server IPv6 address
Interface Name	Which Ethernet interface provide IPv6 DHCP service
Addrs Pool From / To	IPv6 DHCP service range

### 5.3.3 IPv6 dns

Item	Description
router name	IPv6 DNS server name

### 5.3.4 IPv6 tunnel



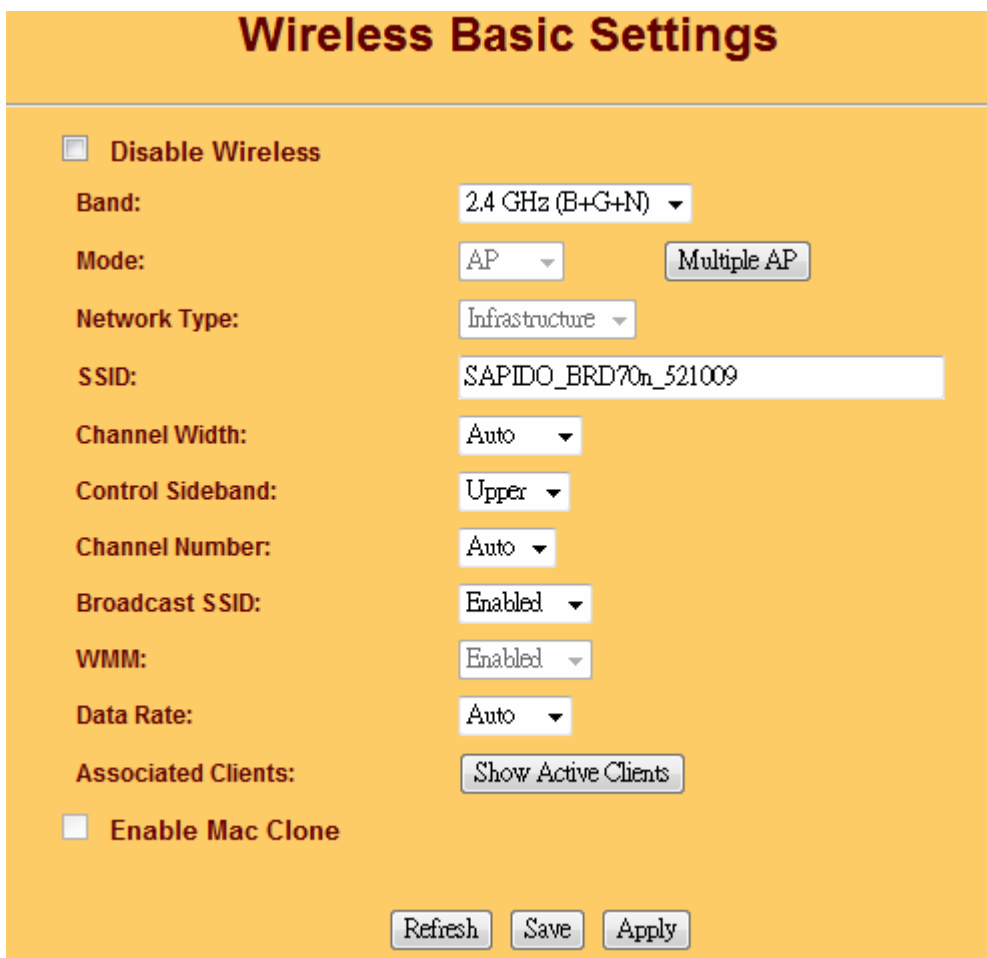
Enable tunnel6

Refresh Save Finish

## 5.4 Wireless

### 5.4.1 Basic Settings

This page is used to configure the parameters for wireless LAN clients who may connect to your Access Point. Here you may change wireless encryption settings as well as wireless network parameters



### Wireless Basic Settings

Disable Wireless

**Band:** 2.4 GHz (B+G+N) ▾

**Mode:** AP ▾

**Network Type:** Infrastructure ▾

**SSID:** SAPIDO\_BRD70n\_521009

**Channel Width:** Auto ▾

**Control Sideband:** Upper ▾

**Channel Number:** Auto ▾

**Broadcast SSID:** Enabled ▾

**WMM:** Enabled ▾

**Data Rate:** Auto ▾

**Associated Clients:**

Enable Mac Clone

Refresh Save Apply

No.	Enable	Band	SSID	Data Rate	Broadcast SSID	WMM	Access	Active Client List
AP1	<input type="checkbox"/>	2.4 GHz (B+G+N)	BRD70n_VAP1	Auto	Enabled	Enabled	LAN+WAN	Show
AP2	<input type="checkbox"/>	2.4 GHz (B+G+N)	BRD70n_VAP2	Auto	Enabled	Enabled	LAN+WAN	Show
AP3	<input type="checkbox"/>	2.4 GHz (B+G+N)	BRD70n_VAP3	Auto	Enabled	Enabled	LAN+WAN	Show
AP4	<input type="checkbox"/>	2.4 GHz (B+G+N)	BRD70n_VAP4	Auto	Enabled	Enabled	LAN+WAN	Show

Item	Description
<b>Disable Wireless</b>	Turn off the wireless service.
<b>Band</b>	Select the frequency. It has 6 options: 2.4 GHz (B/G/N/B+G/G+N/B+G+N).
<b>Mode</b>	Select the mode. It has 3 modes to select: (AP, Client, WDS, AP+WDS). Multiple AP: Please check Section 4.1.2.1. * In Wi-Fi AP mode only support Client mode.
<b>Network Type</b>	<ul style="list-style-type: none"> <li>● <b>Infrastructure</b> : one of the two methods for connecting to wireless networks with Wi-Fi enabled devices such as laptops, Pda's I-phone etc. These devices are connected to wireless network with the help of Access point (AP). Wireless Access Points are usually routers or switches which are connected to internet by Ethernet port.</li> <li>● <b>Ad hoc</b> : By using ad hoc mode, devices are capable for communicating directly with each other. No Access point (routers / switches) is required for communication between devices and all devices in the range connect in peer to peer communication mode.</li> </ul>
<b>SSID</b>	Service Set identifier, users can define to any or keep as default.
<b>Channel Width</b>	Please select the channel width, it has 3 options: 20MHz / 40MHz / Auto
<b>Control Sideband</b>	Enable this function will control your router use lower or upper channel.
<b>Channel Number</b>	Please select the channel; it has Auto, 1, 2~11 options.
<b>Broadband SSID</b>	User may choose to enable <b>Broadcast SSID</b> or not.
<b>WMM</b>	Enable / Disable Wi-Fi Multimedia
<b>Data Rate</b>	Please select the data transmission rate.
<b>Associate Clients</b>	Check the AP connectors and the Wireless connecting status.
<b>Enable MAC Clone (Single Ethernet Client)</b>	Clone the MAC address for ISP to identify.
<b>Enable Universal Repeater Mode (Acting as AP and</b>	Allow to equip with the wireless way conjunction upper level, provide the bottom layer user link in wireless and wired way in the

<b>Client simultaneously)</b>	meantime. (The IP that bottom layer obtains is from upper level.)
<b>SSID of Extended Interface</b>	While linking the upper level device in wireless way, you can set SSID to give the bottom layer user search.
<b>Multiple AP</b>	BRD70n can register up to 4 SSIDs (wireless LAN group). It can be used as if there are multiple wireless LAN access points with one product. Each SSID could be set with different data rate, WMM and access type
<b>Save &amp; Apply</b>	Click on "Save" to save the setting data. The "Apply" button can execute current configuration

## 5.4.2 Advanced Settings

Fragment Threshold:  (256-2346)

RTS Threshold:  (0-2347)

Beacon Interval:  (20-1024 ms)

Preamble Type:  Long Preamble  Short Preamble

IAPP:  Enabled  Disabled

Protection:  Enabled  Disabled

Aggregation:  Enabled  Disabled

Short GI:  Enabled  Disabled

WLAN Partition:  Enabled  Disabled

20/40MHz Coexist:  Enabled  Disabled

RF Output Power:  100%  70%  50%  35%  15%

Item	Description
<b>Fragment Threshold</b>	To identify the maxima length of packet, the over length packet will be fragmentized. The allowed range is 256-2346, and default length is 2346.
<b>RTS Threshold</b>	This value should remain at its default setting of 2347. The range is 0~2347. Should you encounter inconsistent data flow, only minor modifications are recommended. If a network packet is smaller than the present RTS threshold size, the RTS/CTS mechanism will not be enabled. The router sends Request to Send (RTS) frames to a particular receiving station and negotiates the sending of a data frame. After receiving an RTS, the wireless station responds with a Clear to Send (CTS) frame to acknowledge the right to begin transmission. Fill the range from 0 to 2347 into this blank.



<b>Beacon Interval</b>	Beacons are packets sent by an access point to synchronize a wireless network. Specify a beacon interval value. The allowed setting range is 20-1024 ms..
<b>Preamble Type</b>	PLCP is Physical layer convergence protocol and PPDU is PLCP protocol data unit during transmission, the PSDU shall be appended to a PLCP preamble and header to create the PPDU. It has 2 options: Long Preamble and Short Preamble.
<b>IAPP</b>	Inter-Access Point Protocol is a recommendation that describes an optional extension to IEEE 802.11 that provides wireless access-point communications among multivendor systems.
<b>Protection</b>	Please select to enable wireless protection or not.
<b>Aggregation</b>	Enable this function will combine several packets to one and transmit it. It can reduce the problem when mass packets are transmitting.
<b>Short GI</b>	Users can get better wireless transmission efficiency when they enable this function.
<b>WLAN Partition</b>	Shut down the communication between the connected wireless LAN devices. If you set up as "Enabled", devices connected with the router, such as a printer, will not be able to use. Default Setting: "Disabled"
<b>20/40MHz Coexist</b>	Configure 20/40MHz coexisting scheme. If you set up as "Enabled", "20MHz" and "40MHz" will coexist. Normally use as "Disabled". Default Setting: "Disabled"
<b>RF Output Power</b>	Users can adjust RF output power to get the best wireless network environment. Users can choose from 100%, 70%, 50%, 35%, and 15%.

### 5.4.3 Security

Here users define the security type and level of the wireless network. Selecting different methods provides different levels of security. **Please note that using any encryption may cause a significant degradation of data throughput on the wireless link.** There are five Encryption types supported: "None", "WEP", "WPA", "WPA2", and "WPA-Mixed". Enabling WEP can protect your data from eavesdroppers. If you do not need this feature, select "None" to skip the following setting

Select SSID:

Encryption:

Authentication Mode:  Enterprise (RADIUS)  Personal (Pre-Shared Key)

WPA2 Cipher Suite:  TKIP  AES

RADIUS Server IP Address:

RADIUS Server Port:

RADIUS Server Password:

Item	Description
<b>WEP</b>	<p>WEP is the most general encryption scheme among wireless LAN security, configure the common encrypted key (WEP Key) for access point and wireless LAN handset. WEP key length are "64bit", "128bit", and "256bit" (This product corresponds up to 128bit), larger the value is, more the character can be set, and encryption strength will enhanced.</p> <p>* If you configure the encryption key as "5 letters in half-width alphabets and numbers" or "Hexadecimal in 10 digits", please select "64-bit".</p> <p>* If you configure the encryption key as "13 letters in half-width alphabets and numbers" or "Hexadecimal in 26 digits", please select "128-bit".</p>
<b>WPA / WPA2</b>	<p>WPA/WPA2 is wireless LAN security standard which is strengthen over WEP. On WPA-PSK/WPA2-PSK, uses encrypted key called pre-shared key, and set up common encryption key for access point and wireless LAN handset like WEP. There are "AES" and "TKIP" as encryption scheme. "TKIP" automatically updates the key at regular intervals, check and approve the communication, so it can communicate safer than WEP key which uses single encryption key for long time. "AES" is harder to decode comparing to "TKIP", so it can say tougher encryption scheme than "TKIP"</p>
<b>WPA-Mixed</b>	Support WPA and WPA2 at the same time
<b>802.1x Authentication Radius</b>	For radius server authentication
<b>Personal (Pre-Shared Key)</b>	<p>* If you configure Pre-Shared Key as "Hexadecimal in 64 digits", please select "Hex (64 characters)".</p> <p>* If you configure encryption key in "8 to 63 letters in half-width alphabets and numbers", please select</p>

	"Passphrase"
--	--------------

#### 5.4.4 Access Control

Access Control allows user to block or allow wireless clients to access this router. Users can select the access control mode, then add a new MAC address with a simple comment and click on “Apply Change” to save the new addition. To delete a MAC address, select its corresponding checkbox under the Select column and click on “Delete Selected” button.

**Wireless Access Control Mode:** Disable ▾

**MAC Address:** << 0013f73a725d ▾ **Apply Changes**

**Current Access Control List:**

MAC Address	Select

**Delete Selected** **Delete All** **finish**

#### 5.4.5 WPS

This page allows user to change the setting for WPS (Wi-Fi Protected Setup). Using this feature could let your wireless client atomically synchronize it’s setting and connect to the Access Point in a minute without any hassle. SAPIDO BRD70N could support both Self-PIN or PBC modes, or use the WPS button (at real panel) to easy enable the WPS function.

**PIN model**, in which a PIN has to be taken either from a sticker label or from the web interface of the WPS device. This PIN will then be entered in the AP or client WPS device to connect.

**PBC model**, in which the user simply has to push a button, either an actual or a virtual one, on both WPS devices to connect.

BRD70n WPS only support no encryption and WPA2

Please follow instructions below to enable the WPS function.

### 1. Setup Wireless LAN with WPS PIN :

- (1). Get the WPS PIN number from wireless card and write it down.



- (2). Fill in the PIN number from the wireless card in Client PIN Number field, and then click "Start PIN".



- (3). Click PIN from Adapter Utility to complete the WPS process with the wireless router.



(4). Wireless dongle should connect to BRD70n

## 2. Start PBC:

(1). Press the BRD70n WPS button and wait for WPS LED blinking

(2). Press the dongle WPS button

(3). Wireless dongle should connect to BRD70n

## 5.5 Firewall

### 5.5.1 DoS

Please refer [DoS](#)

## 5.6 System Management

This section including **Wake on LAN, Change Username/Password, Upgrade Firmware, Profiles Save, Remote Management, Time Zone, UPnP, Route Setup, VPN Passthrough, and Wan Type Auto Detection**. It is easy and helpful for users making more detailed settings.

### 5.6.1 Change Password

Users can set or change user name and password used for accessing the web management interface in this section.



**Change Password**

User Name:

New Password:

Confirmed Password:

Input User Name and New Password, then input Confirm Password again.

## 5.6.2 Firmware Upgrade

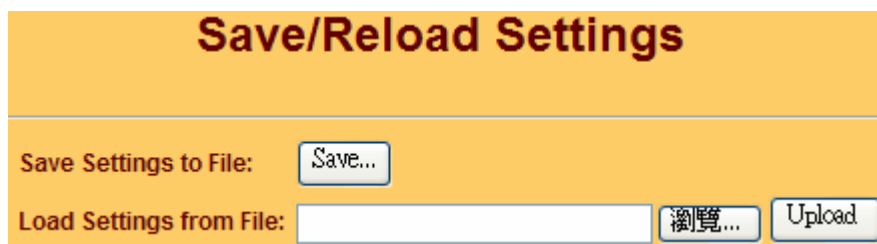
Please refer [Firmware Upgrade](#)

## 5.5.3 Profiles Save

Users can create a backup file that contains current router settings. This backup file can be used to restore router settings. This is especially useful in the event you need to reset the router to its default settings.

### 1. Save Configuration

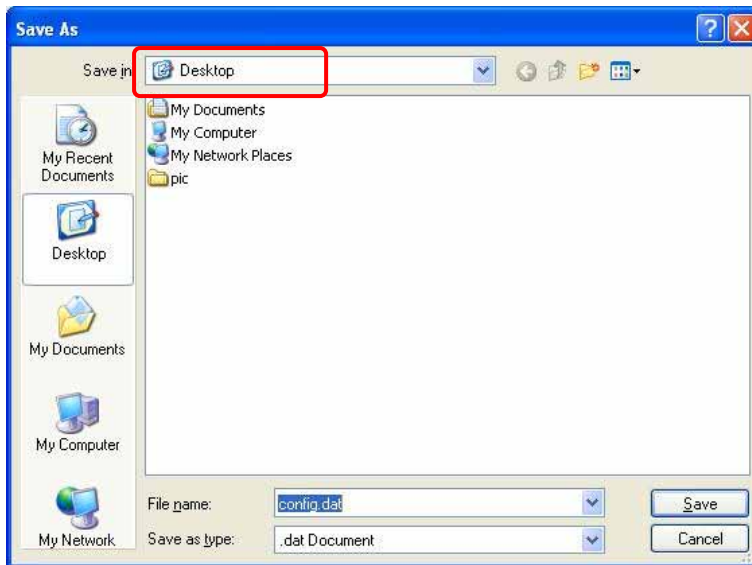
(1). Click Save



(2). Please click "Save" to save the configuration to your computer.

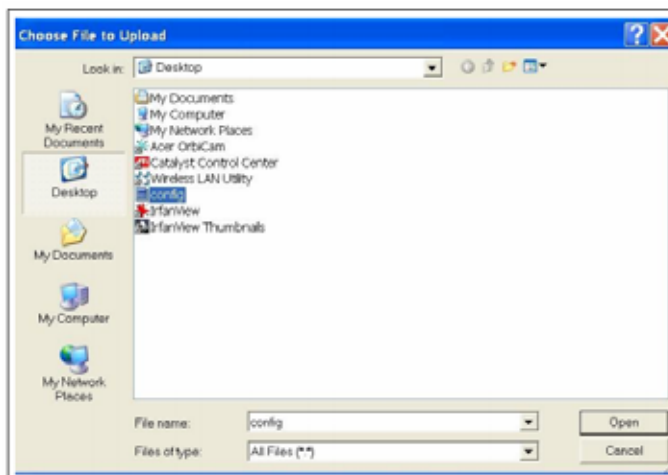


(3). Select the location which you want to save file, then click Save.

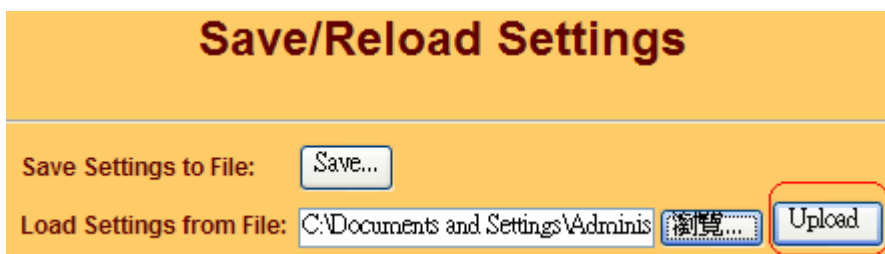


## 2. Load configuration file

- (1). Tap “browse” and select configuration file then click Open



- (2). Click Upload to upload configuration file to BRD70N .



- (3). After 60 seconds, BRD70N will reboot automatically.

## 5.5.4 Remote Management

Please refer [Remote Management](#)

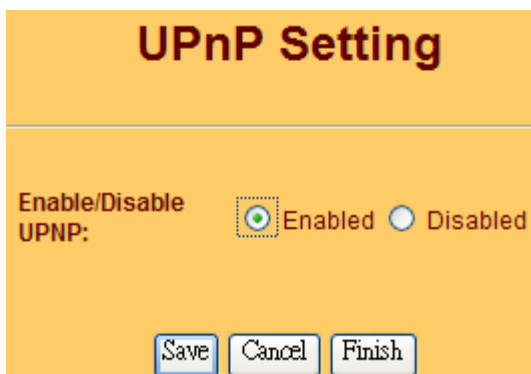
## 5.5.5 Time Zone

Users can synchronize the local clock on the router to an available NTP server (optional). To complete this setting, enable NTP client update and select the correct Time Zone.



Item	Description
Time Zone Select	Please select the time zone.
Enable NTP client update	Please select to enable NTP client update or not.
Automatically Adjust Daylight Saving	Please select to enable Automatically Adjust Daylight Saving or not.
NTP Server	Please select the NTP server from the pull-down list, or you can enter the NTP server IP address manually.
Save & Apply	Click on Save to save the setting date, the Apply button for execute current configuration.

## 5.5.6 UpnP





- **UPnP**

Universal Plug and Play (UPnP) is a standard of networking protocols promulgated by the UPnP Forum. The goals of UPnP are to allow devices to connect seamlessly and to simplify the implementation of networks in the home (data sharing, communications, and entertainment) and in corporate environments for simplified installation of computer components. BRD70N supports UPnP function, and can cooperate with other UPnP devices. When you activate UPnP, please click My Network Places. Users will see an Internet Gateway Device icon. By click the icon, users can enter the GUI of the router. If you do not wish to use UPnP, you can disable it.

### **5.5.7 Route Setup**

Dynamic routing is a distance-vector routing protocol, which employs the hop count as a routing metric. RIP prevents routing loops by implementing a limit on the number of hops allowed in a path from the source to a destination. The maximum number of hops allowed for RIP is 15

Static routing is a data communication concept describing one way of configuring path selection of routers in computer networks. It is the type of routing characterized by the absence of communication between routers regarding the current topology of the network. This is achieved by manually adding routes to the router routing table.

## Routing Setup

**Enable Dynamic Route**

NAT:                     Enabled    Disabled

Transmit:             Disabled    RIP 1    RIP 2

Receive:              Disabled    RIP 1    RIP 2

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**Enable Static Route**

IP Address:          

Subnet Mask:        

Gateway:            

Metric:               

Interface:           

**Static Route Table:**

Destination IP Address	Netmask	Gateway	Metric	Interface	Select
<input type="button" value="Delete Selected"/> <input type="button" value="Delete All"/> <input type="button" value="Finish"/>					

Item	Description
<b>Enable Dynamic Route</b>	Enable or Disable dynamic route
<b>NAT</b>	Enable or Disable NAT function
<b>Transmit</b>	There are 3 options : 1. Disable : do not send any RIP packet out 2. Send RIP1 packet out 3. Send RIP2 packet out
<b>Receive</b>	There are 3 options : 4. Disable : do not receive any RIP packet 5. Only receive RIP1 packet 6. Only receive RIP2 packet

Item	Description
<b>Enable Static Route</b>	Enable or Disable dynamic route
<b>IP Address</b>	Destination IP address
<b>Subnet Mask</b>	Destination IP subnet mask

<b>Gateway</b>	Gateway IP address for destination
<b>Metric</b>	Metric number on router's routing table
<b>Interface</b>	Static route rule for LAN or WAN interface

### 5.5.8 VPN Passthrough

Virtual Private Networking (VPN) is typically used for work-related networking. For VPN tunnels, the router supports IPsec, Pass-through, PPTP Pass-through, and L2TP Pass-through.

## VPN Passthrough Setting

Enable/Disable IPsec Passthrough:     Enabled     Disabled

Enable/Disable PPTP Passthrough:     Enabled     Disabled

Enable/Disable L2TP Passthrough:     Enabled     Disabled

Enable/Disable IPV6 Passthrough:     Enabled     Disabled

Item	Description
<b>IPsec Pass-through</b>	Internet Protocol Security (IPsec) is a suite of protocols used to implement secure exchange of packets at the IP layer. To allow IPsec tunnels to pass through the router, IPsec Pass-through is enabled by default. To disable IPsec Pass-through, select Disable
<b>PPTP Pass-through</b>	Point-to-Point Tunneling Protocol is the method used to enable VPN sessions to a Windows NT 4.0 or 2000 server. To allow PPTP tunnels to pass through the router, PPTP Pass-through is enabled by default. To disable PPTP Pass-through, select Disable.
<b>L2TP Pass-through</b>	To allow the L2TP network traffic to be forwarded to its destination without the network address translation tasks.
<b>IPV6 Pass-through</b>	Allow IPV6 packet to be forwarded to its destination without the network address translation tasks.

## Chapter 6 Q & A

### 6.1 Installation

**1. Q: Where is the XDSL Router installed on the network?**

A: In a typical environment, the Router is installed between the XDSL line and the LAN. Plug the XDSL Router into the XDSL line on the wall and Ethernet port on the Hub (switch or computer).

**2. Q: Why does the throughput seem slow?**

A: To achieve maximum throughput, verify that your cable doesn't exceed 100 meter. If you have to do so, we advise you to purchase a bridge to place it in the middle of the route in order to keep the quality of transmitting signal. Out of this condition you would better test something else.

- Verify network traffic does not exceed 37% of bandwidth.
- Check to see that the network does not exceed 10 broadcast messages per second.
- Verify network topology and configuration.

### 6.2 LED

**1. Why doesn't BRD70N power up?**

A: Check if the output voltage is suitable, or check if the power supply is out of order.

**2. The Internet browser still cannot find or connect to BRD70N after verifying the IP address and LAN cable, the changes cannot be made, or password is lost.**

A: In case BRD70N is inaccessible; you can try to restore its factory default settings. Please press the "Reset" button and keep it pressed for over 7 seconds and the light of STATUS will vanish. The LEDs will flash again when reset is successful.

**3. Why does BRD70N shut down unexpectedly?**

A: Re-plug your power adapter. Then, check the STATUS indicator; if it is off, the internal flash memory is damaged. For more help, please contact with your provider.

### 6.3 IP Address

**1. Q: What is the default IP address of the router for LAN port?**

A: The default IP address is 192.168.1.1 with subnet mask 255.255.255.0

**2. Q: I don't know my WAN IP.**

A: There are two ways to know.

Way 1: Check with your Internet Service Provider.

Way 2: Check the setting screen of BRD70N . Click on **Status & Log** item to select **Network Configuration** on the Main Menu. WAN IP is shown on the WAN interface.

**3. How can I check whether I have static WAN IP Address?**

A: Consult your ISP to confirm the information, or check Network Configuration in BRD70N 's Main Menu.

**4. Will the Router allow me to use my own public IPs and Domain, or do I have to use the IPs provided by the Router?**

A: Yes, the Router mode allows for customization of your public IPs and Domain.

## **6.4 OS Setting**

**1. Why can't my computer work online after connecting to BRD70N ?**

A: It's possible that your Internet protocol (TCP/IP) was set to use the following IP address. Please do as the following steps. (Windows 2000 & XP) **Start > Settings > Network and Dial-up Connections >** double click on **Internet Protocol(TCP/IP) >** select **obtain IP address automatically >** Click on **OK** button. Then, open Internet browser for testing. If you still can't go online, please test something else below.

- Verify network configuration by ensuring that there are no duplicate IP addresses.
- Power down the device in question and ping the assigned IP address of the device. Ensure no other device responds to that address.
- Check that the cables and connectors or use another LAN cable.

**2. Q: Why can't I connect to the router's configuration utility?**

A: Possible Solution 1: Make sure that your Ethernet connect properly and securely. Make sure that you've plugged in the power cord.

Possible Solution 2: Make sure that your PC is using an IP address within the range of 192.168.1.2 to 192.168.1.254. Make sure that the address of the subnet mask is

255.255.255.0. If necessary, the Default Gateway data should be at 192.168.1.1. To verify these settings, perform the following steps:

#### **Windows 2000, or XP Users:**

1. Click on Windows **Start** > click on **Run** > input **cmd** > click on **OK** button.
2. At the DOS prompt, type **ipconfig/all**.
3. Check the IP Address, Subnet Mask, Default Gateway data. Is this data correct? If the data isn't correct. Please input **ipconfig/release** > press **Enter** > input **ipconfig/renew** > press **Enter**.

Possible Solution 3: Verify the connection setting of your Web browser and verify that the HTTP Proxy feature of your Web browser is disabled. Make these verifications so that your Web browser can read configuration pages inside your router. Launch your Web browser.

#### **Internet Explorer Users:**

1. Click on **Tools** > **Internet Options** > **Connections tab**.
2. Select **never dial a connection**, click on **Apply** button, and then click on **OK** button.
3. Click on **Tools** and then click on **Internet Options**.
4. Click on **Connections** and then click on **LAN Settings**.
5. Make sure none of the check boxes are selected and click on **OK** button.
6. Click on **OK** button.

#### **Netscape Navigator Users:**

1. Click on **Edit** > **Preferences** > double-click **Advanced** in the Category window.
2. Click on **Proxies** > select **Direct connection to the Internet** > click on **OK** button.
3. Click on **Edit again** and then click on **Preferences**.
4. Under category, double-click on **Advanced** and then click on **Proxies**.
5. Select **Direct connection to the Internet** and click on **OK** button.
6. Click on **OK** button.

### **3. Q: Web page hangs, corrupt downloads, or nothing but junk characters is being displayed on the screen. What do I need to do?**

A: Force your NIC to 10Mbps or half duplex mode, and turn off the "Auto-negotiate" feature of your NIC as a temporary measure. (Please look at the Network Control Panel, in your Ethernet Adapter's Advanced Properties tab.)

4. **Q: Why can't I connect to the Web Configuration?**

A: you can remove the proxy server settings in your web browser.

## 6.5 BRD70N Setup

1. **Q: Why does BRD70N 's setup page shut down unexpectedly?**

A: If one of the pages appears incompletely in BRD70N 's setup pages, please click on Logout item on the Main Menu before shutting it down. Don't keep it working. Then, close Internet browser and open it again for going back to the previous page.

2. **Q: I don't know how to configure DHCP.**

A: DHCP is commonly used in the large local network. It allows you to manage and distribute IP addresses from 2 to 254 throughout your local network via BRD70N . Without DHCP, you would have to configure each computer separately. It's very troublesome. Please Open **Internet browser** > Input **192.168.1.1 in the website blank field** > Select **DHCP Server** under the **IP Config Menu**.

3. **Q: How do I upgrade the firmware of BRD70N ?**

A: Periodically, a new Flash Code is available for BRD70N on your product supplier's website. Ideally, you should update BRD70N 's Flash Code using **Firmware Upgrade** on the **System Management** menu of BRD70N Settings.

4. **Q: Why is that I can ping to outside hosts, but cannot access Internet websites?**

A: Check the DNS server settings on your PC. You should get the DNS servers settings from your ISP. If your PC is running a DHCP client, remove any DNS IP address setting. As the router assign the DNS settings to the DHCP-client-enabled PC.

5. **Q: BRD70N couldn't save the setting after click on Apply button?**

A: BRD70N will start to run after the setting finished applying, but the setting isn't written into memory. Here we suggest if you want to make sure the setting would be written into memory, please reboot the device via **Reboot** under **System Management** directory.

## 6.6 Wireless LAN

1. **Q: Why couldn't my wireless notebook work on-line after checking?**

A: Generally, Wireless networks can sometimes be very complicated to set up, particularly if you're dealing with encryption and products from different vendors. Any

number of variables can keep your workstations from talking to each other. Let's go over some of more common ones.

For starters, verify that your router and your workstation are using the same SSID descriptions. SSID acts as a password when a mobile device tries to connect to the wireless network. The SSID also differentiates one WLAN from another, so all access points and all devices attempting to connect to a specific WLAN must use the same SSID. A workstation will not be permitted to connect to the network unless it can provide this unique identifier. This is similar to the function of your network's Workgroup or Domain name.

When you're experiencing conductivity problems, it is always best to keep things simple. So next you are going to do is that, please disable any WEP encryption you might have configured.

Successful implementation of encryption also includes the use of a shared key. A HEX key is the most common, but other formats are also used. This key identifies the workstation to the router as a trusted member of this network. Different manufacturers can implement this key technology in ways that might prevent them from working correctly with another vendor's products. So pay attention to detail is going to be the key to a successful installation.

Next make sure the router and the NIC are configured to use the same communications channel. There are normally 11 of them, and the default channel can also vary from vendor to vendor. You might also want to confirm that the router has DHCP services enabled and an address pool configured. If not, the NIC won't be able to pick up an IP address. I have run across a few access points that offer DHCP services but do not assign all of the needed IP information to the NIC. As a result, I was able to connect to the network, but could not browse the web. The point is, don't assume anything. Verify for yourself that all of the required settings are being received by the workstation.

Finally, you might want to keep the system you're trying to configure in the same room as the router, at least during the initial configuration, in order to minimize potential interference from concrete walls or steel beams.

## **2. Q: My PC can't locate the Wireless Access Point.**

A: Check the following:

- Your PC is set to Infrastructure Mode. (Access Points are always in Infrastructure Mode.)



- The SSID on your PC and the Wireless Access Point are the same. Remember that the SSID is case-sensitive. So, for example “Workgroup” does NOT match “workgroup”.
- Both your PC and the Wireless Access Point must have the same setting for WEP. The default setting for the Wireless Router is disabled, so your wireless station should also have WEP disabled.
- If WEP is enabled on the Wireless Router, your PC must have WEP enabled, and the key must match.
- If the Wireless Router’s Wireless screen is set to Allow LAN access to selected Wireless Stations only, then each of your Wireless stations must have been selected, or access will be blocked.
- To see if radio interference is causing a problem, see if connection is possible when close to the Wireless Access Point. Remember that the connection range can be as little as 100 feet in poor environments.

**3. Q: Wireless connection speed is very slow.**

A: The wireless system will connect at highest possible speed, depending on the distance and the environment. To obtain the highest possible connection speed, you can experiment with following:

- Access Point location: Try adjusting the location and orientation of the Access Point.
- Wireless Channel: If interference is the problem, changing to another channel may show a marked improvement.
- Radio Interference: Other devices may be causing interference. You can experiment by switching other devices off, and see if this helps. Any “noisy” devices should be shielded or relocated.
- RF Shielding: Your environment may tend to block transmission between the wireless stations. This will mean high access speed is only possible when close to the Access Point.

**4. Q: Some applications do not run properly when using the Wireless Router.**

A: The Wireless Router processes the data passing through it, so it is not transparent. Use the Special Application feature to allow the use of Internet applications which do not function correctly. If this does solve the problem, you can use the DMZ function. This should work with almost every application, but:

- It is a security risk, since the firewall is disabled.

- Only one (1) PC can use this feature.

**5. Q: I can't connect to the Wireless Router to configure it.**

A: Check the following:

- The Wireless Router is properly installed, LAN connections are OK, and it is powered ON.
- Make sure that your PC and the Wireless Router are on the same network segment.
- If your PC is set to "Obtain an IP Address automatically" (DHCP client), restart it.
- If your PC uses a Fixed (Static) IP address, make sure that it is using an IP Address within the range 192.168.1.129 to 192.168.1.253 and thus compatible with the Wireless Router's default IP Address of 192.168.1.254. Also, the Network Mask should be set to 255.255.255.0 to match the Wireless Router. In Windows, you can check these settings by using Control Panel ~ Network to check the Properties for the TCP/IP protocol.

**6. Q: The WinXP wireless interface couldn't communicate the WEP with SAPIDO BRD70N's wireless interface.**

A: The default WEP of WinXP is **Authentication Open System - WEP**, but the WEP of SAPIDO BRD70N is only for **Shared Key - WEP**, it caused both sides couldn't communicate. Please select the WEP of WinXP from Authentication Open System to **Pre-shared Key - WEP**, and then the WEP wireless interface between WinXP and SAPIDO BRD70N would be communicated.

## 6.7 Support

**1. Q: What is the maximum number of IP addresses that the XDSL Router will support?**

A: The Router will support to 253 IP addresses with NAT mode.

**5. Q: Is the Router cross-platform compatible?**

A: Any platform that supports Ethernet and TCP/IP is compatible with the Router.

## 6.8 Others

**1. Q: Why does the router dial out for PPPoE mode very often?**

A: Normally some of game, music or anti-virus program will send out packets that trigger the router to dial out, you can close these programs. Or you can set the idle time to 0, then control to dial out manually.

**2. Q: What can I do if there is already a DHCP server in LAN?**

A: If there are two DHCP servers existing on the same network, it may cause conflict and generate trouble. In this situation, we suggest to disable DHCP server in router and configure your PC manually.

## Chapter 7 Appendices

### 7.1 Operating Systems

- **Microsoft:** Windows 2000, XP, Vista, Windows 7 and the following related versions
- **Apple:** Mac OS X 10.4.7, Leopard and the following related versions
- **Linux:** Redhat 9, Fedora 6 & 7, Ubuntu 7.04 and the following related versions
- **Apple iOS**
- **Google Android**

### 7.2 Browsers

- Internet Explorer ver. 6 and 7 and the following related versions
- Firefox ver. 2.0.0.11 and the following related versions
- Safari ver. 3.04 and and the following related versions

### 7.3 Communications Regulation Information

Should any consumers need to learn more information, services and supports, please contact the supplier of your product directly.