| WAN Access Co | atrol | 1. |
|---------------|---------------|-------|
| Enable: | | Save |
| IP Address: | 60 250 65 207 | Resto |
| Port: | 8080 | Help |

Figure 5-3-22

5.4 Advanced Settings

"Advanced Settings" includes the following 6 submenus. Clicking any of them enters corresponding interface for configuration. Below explains, in details, each such feature.

| Advanced | |
|------------------------------|--|
| Virtual Server | |
| ▶ DMZ | |
| ▶ UPnP | |
| DDNS | |
| Routing | |
| Bandwith Control | |

5.4.1 Virtual Server

The Virtual Server feature grants Internet users access to services on your LAN. It is useful for hosting online services such as FTP, Web, or game servers. For each Virtual Server, you define a WAN port on your router for redirection to an internal LAN IP Address and LAN port.

| rtu | al Server | | | | | |
|-----|-----------|----------|---------------|---------------|--------|--------|
| | | | Virtual Serve | er List | - | |
| ID | WAN Port | LAN Port | Private IP | Protocol Type | Status | Action |

Figure 5-4-1

Click "Add" to display below page.

| - | | |
|---|---|---|
| Virtual Server all a LAN server at a connect to a spe | ows you to open a single WAN service port and redirect all traffic received through such port to a designated IP address. It allows remote computers, such as computers on the Internet, to ecific computer or service within a private local area network (LAN). | R |
| WAN Port: | 4369 Well-known Service Port: Leviton S&A Controller (4369) 💌 | |
| LAN Port: | 4369 | |
| Private IP: | 192.168.0.101 | |
| Protocol: | Both 💌 | |
| Enable: | | |

The page includes the following fields:

| Object | Description | | | | |
|----------------|---|--|--|--|--|
| • WAN Port: | Enter the WAN service port. | | | | |
| | The "Well-Known Service Port" lists commonly used protocol ports such | | | | |
| | as: | | | | |
| | Leviton S&A Controller (4369) | | | | |
| | ■ DNS (53) | | | | |
| | ■ FTP (21) | | | | |
| | ■ GOPHER (70) | | | | |
| Well-Known | ■ HTTP (80) | | | | |
| Service Ports: | NNTP (1190) | | | | |
| | ■ POP3 (110) | | | | |
| | ■ PPTP (1723) | | | | |
| | ■ SMTP (25) | | | | |
| | ■ SOCK (1080) | | | | |
| | ■ TELNET(23) | | | | |
| | In case that you don't find the port ID you need, add it manually. | | | | |
| • LAN Port: | Enter LAN service port. | | | | |
| • LAN IP: | The IP address of a computer used as a server in LAN. | | | | |
| Dretecoli | Includes TCP, UDP and Both. | | | | |
| | Select "Both" if you are not sure about which protocol to use. | | | | |
| • Enable: | Check the "Enable" option to activate corresponding entry. | | | | |

For example: If you create a web server using port 80 on a LAN PC at the IP address of 192.168.0.100, and you want WAN users to access such server via <u>http://x.x.x.x4000</u> (x.x.x.x represents router's WAN IP address), then do as follows:

- 1) Enter "4000" in WAN Port field, 80 in LAN port field and 192.168.0.100 in Private IP field,
- 2) Select "Both" from protocol drop-down list.
- 3) Check the "Enable" box.
- 4) Click "Save" to save such settings.

| Virtual Serve | er |
|---|---|
| Virtual Server all a LAN server at a connect to a spe | ows you to open a single WAN service port and redirect all traffic received through such port to a designated IP address. It allows remote computers, such as computers on the Internet, to ecific computer or service within a private local area network (LAN). |
| WAN Port: | 4000 Well-known Service Port: HTTP(80) |
| LAN Port: | 80 |
| | 192.168.0.100 |
| Private IP: | |
| Private IP: Protocol: | Both 😒 |



Setting WAN port hereon to the same value as that on WAN access control section will deactivate the virtual server feature.

5.4.2 DMZ Settings

In some cases, we need to set a computer to be completely exposed to extranet for implementation of a bidirectional communication. To do so, we set it as a DMZ host.

| DMZ | |
|--|---|
| In some cases, a computer need we set it as a DMZ host. | s to be completely exposed to extranet for implementation of 2-way communication. To do so, |
| (IMPORTANT: Once a PC is | set to a DMZ host, it will be completely exposed to Internet, and may be vulnerable to attack as ative.) |
| tirewall settings become inoper- | |

The page includes the following fields:

| Object | Description |
|--------------------------|---|
| DMZ Host IP Address: | Enter the IP address of a LAN computer which you want to set to a DMZ host. |
| • Enable: | Check/uncheck to enable/disable the DMZ host. |

| EX 1. | If you set a PC to a DMZ host, it will be completely exposed to extranet and gains |
|---------|--|
| E . | no more protection from the device firewall. |
| Nate 2. | 2. A WAN user accesses the DMZ host through a corresponding WAN IP address. |

5.4.3 UPnP Settings

UPnP (Universal Plug and Play) requires Windows ME/Windows XP or later or application softwares that support such UPnP feature.

| inchia | | | | | | |
|--------|-------------|----------|--------------|----------|----------|-------------|
| | | | UPnP Mapping | List | | |
| ID | Remote Host | WAN Port | LAN Host | LAN Port | Protocol | Description |

Figure 5-4-5

| Object | Description | | | | |
|--------------|--|--|--|--|--|
| • ID: | Entry ID. | | | | |
| Remote Host: | Description of a remote host that receives/sends responses. | | | | |
| • WAN Port: | Port on router side. | | | | |
| LAN Host: | Description of an internal host that receives/sends responses. | | | | |
| LAN Port: | Port on host side. | | | | |
| Protocol: | Indicates whether to perform TCP or UDP port forwarding | | | | |
| Description: | Software info of a mapped port. | | | | |

5.4.4 Routing

This section talks about Routing Table and Static Routing features.

Routing Table

This page displays the router's core routing table which lists destination IP, subnet mask, gateway, hop count and interface.

| Routing Table Static Routing | | | | | | |
|------------------------------|---------------|---------|--------|-----------|---------|--|
| Destination Network | Subnet Mask | Gateway | metric | Interface | Refresh | |
| 192.168.2.0 | 255.255.255.0 | 0.0.0.0 | 0 | brl | | |
| 192.168.0.0 | 255.255.255.0 | 0.0.0 | 0 | br0 | | |
| 127.0.0.0 | 255.0.0.0 | 0.0.0.0 | 0 | 10 | | |

Figure 5-4-6

Static Routing

You can use this section to set up router's static routing feature.

| | the second s | Static Routing Table | | |
|----|--|----------------------|---------|--------|
| ID | Destination Network | Suhnet Mask | Gateway | Action |

Figure 5-4-7

Click "Add" to add static routing entries.

| | Static Routing | =0 |
|----------------------|----------------|----|
| Destination Network: | | |
| Subnet Mask: | | |
| Gateway | | |

Figure 5-4-8

| Object | Description |
|----------------|--|
| Destination | Enter a destination IP address |
| Network: | |
| Output Master | Enter a Subnet Mask that corresponds to the destination IP address you |
| • Subnet Mask: | entered. |
| Gateway: | Next-hop IP address. |

5.4.5 Bandwidth Control

To better manage bandwidth allocation and optimize network performance, use the Custom Bandwidth Allocation feature.

| Bandwidth Settings | |
|-------------------------------|---------|
| Disable Bandwidth Allocation | Save |
| O Custom Bandwidth Allocation | Restore |
| | Help |

Figure 5-4-9

The page includes the following fields:

| Object | Description |
|-------------|---|
| Custom | Select this option to customize a bandwidth allocation policy that best |
| Bandwidth | fits your network. You can set specific limits on uplink and downlink |
| Allocation: | bandwidth of PCs within a specified IP range. |

| andwidth Settings | | | | | |
|--|---------------------|------------|-------------|--------|--------|
| O Disable Bandwidth Al O Custom Bandwidth A | ocation location | | | | |
| IP Range | Upstream | Downstream | Description | Enable | Action |

Figure 5-4-10

Click "Add" to display the page below:

| Sandwidth Settings | | |
|----------------------------|---|---|
| Enable | ☐ (If disabled, settings below will only be sa | ved instead of being activated.) |
| IP Range | - | |
| Upstream Bandwidth Limit | KByte(Total) | |
| Downstream Bandwidth limit | KByte(Total) | |
| P2P Download Control | Regulates P2P download rate to ensure each | h user a guaranteed share of bandwidth. |
| Allocation Mode | • Each member of the IP range shall utilize the allocated bandwidth individually. | O All members of the IP range shall share the allocated bandwidth collectively. |
| Allocation Policy | O Uitize only allocated bandwidth | • Utilize more bandwidth if available |
| Description | | |

| Object | Description | |
|--|---|--|
| • Enable: | Check/uncheck to enable/disable current bandwidth entry | |
| • IP Range: | Enter a single IP or an IP range. | |
| Upstream Bandwidth Limit: | Max total upload bandwidth for a specified PC or a range of PCs. | |
| Downstream Bandwidth Limit: | Max total download bandwidth for a specified PC or a range of PCs | |
| P2P Download | Regulates P2P download rate to ensure each user a guaranteed share | |
| Control: | of bandwidth. | |
| | Select either- | |
| | "Individual (Each member of the IP range shall utilize the allocated | |
| Allocation Mode: | bandwidth individually)" | |
| | Collective (All members of the IP range shall share the allocated | |
| | bandwidth collectively)" | |
| | Select either "Utilize only the allocated bandwidth" or "Utilize more | |
| • Allocation Policy: | bandwidth if available" | |
| Description: | Brief description of current entry. | |

1. Please note the bandwidth unit.



- If you enable the P2P Download Control feature, it will limit P2P download rate (smaller than the specified value) to ensure other applications such as web browsing a reserved and guaranteed share of bandwidth.
- If you select "Utilize more bandwidth if available", router will dynamically adjust uplink/downlink bandwidth allocation to ensure defined and additional bandwidth if available or only defined bandwidth.

For example:

If you want each PC within the IP range of 192.168.0.100-192.168.0.120 to have up to 2M uplink and 2M downlink bandwidth, and want to control P2P download bandwidth, then configure same settings as shown on the screen below on your router:

| Bandwidth Settings | | | |
|----------------------------|---|---|---|
| Enable | If disable | ed, settings below will only be | saved instead of being activated.) |
| IP Range | 192.168.0.1 | 00 - 192.168.0.120 | |
| Upstream Bandwidth Limit | 256 | KByte(Total) | |
| Downstream Bandwidth limit | 256 | KByte(Total) | |
| P2P Download Control | Regulates P2P download rate to ensure each user a guaranteed share of bandwidth | | each user a guaranteed share of bandwidth. |
| Allocation Mode | • Each mem the allocated b | ber of the IP range shall utilize andwidth individually. | O All members of the IP range shall share the allocated bandwidth collectively. |
| Allocation Policy | OUitize only | y allocated bandwidth | O Utilize more bandwidth if available |
| Description | | | |

Figure 5-4-12

5.5 Wireless Settings

Wireless Settings includes 8 submenus as shown in the screenshot below. Clicking any tab enters corresponding interface for configuration.

| - Wi | reless |
|------|-------------------------|
| • 8 | asic |
| S | ecurity |
| ×V | VPS |
| ×V | VDS |
| G | juest Network |
| ⇒ v | Vireless Access Control |
| • 0 | onnection List |
| ×A | dvanced |

5.5.1 Basic Settings

This section allows you to manage your wireless network (2.4G or 5G). You can config country code, wireless network name (SSID), network mode and channel settings, etc the way you want.

Basic Settings-- 2.4G

| .46 56 | | |
|-------------------------|----------------------|-------|
| Country: America 💌 | | Save |
| 2.4GHz wireless network | Enable | Resto |
| SSID Broadcast | ● Enable ○ Disable | Help |
| SSID | Default_2.4G | |
| 802.11 Mode | 11b/g/n mixed mode 🐱 | |
| Channel | Auto | |
| Channel Bandwidth | ○ 20 | |
| Extension Channel | Auto 💌 | |
| WMM Capable | ⊕ Enable ○ Disable | |
| APSD Capable | O Enable O Disable | |

Figure 5-5-1

The page includes the following fields:

| Object | Description | |
|------------------------|---|--|
| • Country: | Select your country code from the drop-down list. There are 11 options available. | |
| • 2.4GHz Wireless | Check/uncheck to enable/disable the 2.4GHz wireless feature. If | |
| Network: | disabled, all 2.4GHz-based features will be disabled accordingly. | |
| | Select "Enable"/"Disable" to make your wireless network visible/ | |
| | invisible to any wireless clients within coverage when they perform a | |
| | scan they perform a scan to see what's available. | |
| SSID Broadcast: | When disabled, such wireless clients will have to first know this SSID | |
| | and manually enter it on their devices if they want to connect to the | |
| | SSID. | |
| | By default, it is enabled . | |
| • SSID: | A SSID (Service Set Identifier) is the unique name of a wireless network. | |
| . 002.44 Meder | Select a right mode according to your wireless client. | |
| • 802.11 Mode: | The default mode is 11b/g/n mixed . | |
| | For an optimal wireless performance, you may select the least | |
| • Channel: | interferential channel. It is advisable that you select an unused channel | |
| • Channel. | or "Auto" to let device detect and select the best possible channel for | |
| | your wireless network to operate on from the drop-down list. | |
| | Select a proper channel bandwidth to enhance wireless performance. | |
| Cnannel Bandwidth: | When there are 11b/g and 11n wireless clients, please select the | |
| | 802.11n mode of 20/40M frequency band. | |
| Extension Channel: | Working network frequency range for 11n mode | |
| WAN Canable | Enabling this option may boost transmission capacity of wireless | |
| | multimedia data (such as online video play). | |
| ASPD Capable: | Select to enable/disable the auto power saving mode. | |



When there are only **non-11n wireless clients**, select **20M** frequency band mode; when the wireless network mode is **11n mode**, please select **20/40M** frequency band to boost its throughput.

Basic Settings-- 5G

| Country: America 👻 | | |
|-----------------------|--------------------|---|
| 5GHz wireless network | Enable | |
| SSID Broadcast | • Enable O Disable | 1 |
| SSID | Default_5G | |
| 802.11 Mode | 11a/n mixed mode 🛩 | |
| Channel | Auto | |
| WMIM Capable | Enable O Disable | |
| APSD Capable | O Enable | |

Figure 5-5-2

| Object | Description |
|-----------------|---|
| - Country | Select your country code from the drop-down list. |
| • Country: | There are 10 options available. |
| • 5GHz Wireless | Check/uncheck to enable/disable the 5GHz wireless feature. If disabled, |
| Network: | all 5GHz-based features will be disabled accordingly. |
| | Select "Disable" to hide your SSID. When disabled, no wireless clients |
| SSID Broadcast: | will be able to see your wireless network when they perform a scan to |
| | see what's available. If they want to connect to your router, they will |
| | have to first know this SSID and then manually enter it on their devices. |
| | By default, this option is enabled . |
| | A SSID (Service Set Identifier) is the unique name of a wireless network |
| • 5510: | (changeable). |
| | Select a right mode according to your wireless client. |
| • 802.11 Mode: | The default mode is 11a/n . |
| | The Channel can be changed to fit the channel setting for an existing |
| . Channalı | wireless network or to customize the wireless network. From the |
| • Gnanner: | drop-down list, you can select a most effective channel. You can also |
| | select "Auto Select" to let system detect and choose one that best fits |

| | your network. |
|----------------|---|
| • WMM-Capable: | Enabling this option may boost transmission capacity of wireless multimedia data (such as online video play). |
| ASPD Capable: | Select to enable/disable the auto power saving mode. |

5.5.2 Wireless Security

This section allows you to encrypt both 2.4GHz wireless and 5GHz wireless networks to block unauthorized accesses and malicious packet sniffing.

To configure wireless security settings for 2.4GHz network, enter page below:

| 2.4G 5G | | | |
|---------------------|----------------|---|---------|
| 2.4GHz network SSID | "Default_2.4G" | | Save |
| Security Mode | Disable | ~ | Restore |
| | | | Help |

Figure 5-5-3

Available options for security mode include "**Open**", "**Shared**", "**WPA-PSK**", "**WPA2-PSK**", "**Mixed WPA/WPA2-PSK**". See below for details.

| Security | | |
|-----------------------|----------------------|---------|
| 2.4G 5G | | |
| 2.4GHz network \$\$ID | - "Default_2.4G" | Save |
| Security Mode | Disable | Restore |
| | Disable | |
| | Open | Help |
| | Shared | 100 |
| | WPA - PSK | |
| | Mixed WPA/WPA2 - PSK | |

Figure 5-5-4

OPEN/SHARED

WEP is intended to provide data confidentiality comparable to that of a traditional wired network. Two methods of authentication can be used with WEP: **Open System** authentication and **Shared Key** authentication.

| 2.4GHz network SSID | "Default_2.4G" | | | Sa |
|---------------------|----------------|---|---------|-----|
| Security Mode | Open | × | | Res |
| Default key | key 1 👻 | | | He |
| WEP key1 | ASCII | | ASCII 🗸 | |
| WEP key2 | ASCII | | ASCII 💌 | |
| WEP key3 | ASCII | | ASCII 🖌 | |
| WEP key4 | ASCII | | ASCII 🗸 | |

Figure 5-5-5

The page includes the following fields:

| Object | Description |
|----------------|---|
| Security Mode: | Select a proper security mode from the drop-down menu. |
| | Select one key from the 4 preset keys to encrypt wireless data on the |
| • Default Key: | network. |

WPA-PSK

The WPA protocol implements the majority of the <u>IEEE 802.11i</u> standard. It enhances data encryption through the **Temporal Key Integrity Protocol (TKIP)** which is a 128-bit per-packet key, meaning that it dynamically generates a new key for each packet. WPA also includes a <u>message integrity check</u> feature to prevent data packets from being hampered with. Only authorized network users can access the wireless network.

| | | Covo |
|-----------------------|-----------------------|---------|
| 2.4GHz network SSID " | Default_2.4G" | Save |
| Security Mode | WPA - PSK | Restore |
| Cipher Type | O AES O TKIP TKIP&AES | Help |
| Security Key | 987654321 | |
| Key Renewal Interval | 86400 Seconds | |

Figure 5-5-6

The page includes the following fields:

| Object | Description |
|---------------------------|--|
| | Select one cipher type from: |
| Cipher Type: | AES (Advanced Encryption Standard) |
| | TKIP (Temporary Key Integrity Protocol) |
| Security Key: | Enter a security key, which must be between 8-63 ASCII characters. |
| Key Renewal Interval: | Enter a valid time period for the key. |

WPA2-PSK

The later WPA2 protocol features compliance with the full IEEE 802.11i standard and uses **Advanced Encryption Standard (AES)** in addition to TKIP encryption protocol to guarantee better security than that provided by WEP or WPA.

| 2.46 56 | | 1 |
|----------------------|-----------------------|-------|
| 2.4GHz network SSID | "Default_2.4G" | Save |
| Security Mode | WPA2 - PSK | Resto |
| Cipher Type | O AES O TKIP TKIP&AES | Help |
| Security Key | 987654321 | |
| Key Renewal Interval | 86400 Seconds | |

Figure 5-5-7

| Object | Description |
|---------------------------|--|
| | Select one cipher type from: |
| Cinhar Turna | AES (Advanced Encryption Standard) |
| • Cipner Type: | TKIP (Temporary Key Integrity Protocol) |
| | ■ TKIP&AES. |
| • Security Key: | Enter a security key, which must be between 8-63 ASCII characters. |
| Key Renewal Interval: | Enter a valid time period for the key. |

5.5.3 WPS Settings

Wi-Fi Protected Setup makes it easy for home users who know little of wireless security to establish a secure wireless home network, as well as to add new devices to an existing network without entering long passphrases or configuring complicated settings.





Simply enter a PIN code or press the software PBC button or hardware WPS button (if any) and a secure wireless connection is established.

| 2.4GHz wireless netwo | rk | Save |
|-----------------------|--------------------|-------|
| 2.4GHz SSID | Default_2.4G | Resto |
| Enable WPS | O Disable 🛞 Enable | Help |
| WPS Mode | ⊙PBC ○PIN | Lieb |
| | Rese | t OOB |

Figure 5-5-9

| Object | Description |
|---------------|--|
| • Enable WPS: | Select to enable/disable the WPS encryption. |
| | Select PBC (Push-Button Configuration) or PIN. |
| | Operation Instructions |
| WPS Mode: | PBC: If you find the WPS LED blinking for 2 minutes after you |
| | press the hardware WPS button on the device, it means that PBC |
| | encryption method is successfully enabled. And an authentication |
| | will be performed between your router and the WPS/PBC-enabled |

| | wireless client device during this time; if it succeeds, the wireless |
|------------|--|
| | client device connects to your device, and the WPS LED turns off. |
| | Repeat steps mentioned above if you want to connect more |
| | wireless client devices to the device. |
| | ■ PIN : To use this option, you must know the PIN code from the |
| | wireless client and enter it in corresponding field on your device |
| | while using the same PIN code on client side for such connection. |
| | When clicked, the WPS LED turns off; WPS function will be disabled |
| Reset OOB: | automatically; WPS server on the Router enters idle mode and will not |
| | respond to client's WPS connection request |



The WPS encryption can be implemented only between your Router and another WPS-capable device.

5.5.4 WDS Settings

WDS (Wireless Distribution System) feature can be used to extend your existing 2.4G or 5G wireless network coverage. Here we present you how to configure such feature in 2.4GHz, which also apply to 5GHz.



| WDS | | |
|----------|---------|---------|
| 2.4G 5G | | |
| WDS Mode | Disable | Save |
| | | Restore |
| | | Help |
| | | |

Figure 5-5-10

Select Repeater Mode to display below page:

| Object | Description |
|-------------------|---|
| | Enter the MAC address of a wireless link partner or populate this field |
| • AP MAC Address: | using the Open Scan option. |
| • WDS Mode: | Select Disable or Repeater Mode |

For example: If you want to implement the WDS feature on 2 47611-WG4 routers labeled 47611-WG4-1 and 47611-WG4-2 respectively, then first select "Repeater Mode" and follow steps below:

| WDS Mode | Repeater Mode 😒 | Save |
|----------------|-----------------|---------|
| AP MAC address | | Restore |
| AP MAC address | | Help |
| | | |
| | Open scan | |

Figure 5-5-11

1. If you already know **47611-WG4-2's** MAC address, then you can manually enter it on **47611-WG4-1** and click "Save".

2. Or you can use the Open Scan option.

1) Click the "Open Scan" button to search and select 47611-WG4-2's SSID, confirm on the appearing dialogue

| | | | | | | Save |
|-----------|---------------------------------|---|-------------------|-----------------------------|-----------------------------|---------|
| WDS Mode | | Repeater Mode 🛩 | | | | |
| AP MAC as | idress | | | | | Restore |
| AP MAC as | idress | | | | | Help |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | Close scan | | | | |
| Select | SSID | Close scan MAC address | Channel | Security | Signal strength | |
| Select | SSID DSL-6641K | Close scan MAC address F0:TD:68:FA:C5:A1 | Channel 1 | Security | Signal strength 73 | |
| Select | SSID DSL-6641K WPS-Dongle | Close scan MAC address F0:7D:68:FA:C5:A1 00:12:5F:08:C2:BA | Channel 1 8 | Security none wep-wpa | Signal strength 73 54 | |

box and then click "Save". 47611-WG4-2's MAC address will be added automatically.

Figure 5-5-12

2) Save your settings.

| | | | | | | Is |
|-----------|---------------------------------|---|-------------------|-----------------------------|-----------------------------|----|
| WDS Mode | | Repeater Mode 🛩 | | | | |
| AP MAC ad | dress | F0 7D 68 FA C5 A1 | | | | Re |
| AP MAC ad | dress | | | | | F |
| | | Class scan | | | | |
| | | -01036-50811 | | | | |
| Select | SSID | MAC address | Channel | Security | Signal strength | |
| Select | SSID DSL-6641K | MAC address F0:TD:68:FA:C5:A1 | Channei 1 | Security | Signal strength | |
| Select | SSID DSL-6641K WPS-Dongle | MAC address F0:7D:68:FA:C5:A1 00:12:5F:08:C2:BA | Channei 1 8 | Security none wep wpa | Signal strength 73 54 | |

3. Repeat steps 1-2 on **47611-WG4-2**. After the 2 devices have added each other's MAC address the WDS feature can be implemented.



- WDS feature can only be implemented between 2 wireless devices that both support the WDS feature. Plus, SSID, channel, security settings and security key must be the same on both such devices.
- 2. To encrypt your wireless network, see **sections 5.5.2-5.5.3**. Do remember to reboot the device after you saved your wireless security settings, otherwise the

Figure 5-5-13

WDS feature may not function.

5.5.5 Guest Network

The Guest Network feature allows guests to access Internet and other users on the guest network while disallowing them to access device web manager, users on primary network and clients behind the LAN ports.

You can find it available in both 2.4G and 5G network. Here we present you how to configure such feature in 2.4GHz, which also apply to 5GHz.

| | | Save |
|------------------------|----------------|-------|
| 2.4GHz wireless networ | k. | Resto |
| Guest Network | Enable | |
| SSID Broadcast | Enable | Help |
| AP Isolation | Enable | |
| SSID | Default_2.4G_2 | |
| Security Mode | Disable 👻 | |

Figure 5-5-14

| Object | Description |
|-----------------|---|
| Guest Network: | Check/uncheck to enable/disable the guest network feature. |
| SSID Broadcast: | Select "Disable" to hide your SSID. When disabled, no wireless clients will be able to see your wireless network when they perform a scan to see what's available. If they want to connect to your router, they will have to first know this SSID and then manually enter it on their devices. By default, it is enabled. |
| AP Isolation: | If enabled, clients connecting to the guest network will be mutually inaccessible. |
| • SSID: | A SSID (Service Set Identifier) is the unique name of a wireless network. |
| Security Mode: | Determine whether to require authentication on wireless clients. Select a proper mode from the drop-down menu. |

5.5.6 Wireless Access Control

The **MAC-based Wireless Access Control** feature can be used to allow or disallow clients to connect to your 2.4G or 5G wireless network. Here we present you how to config such feature in 2.4GHz, which also apply to 5GHz.

| Vireless Access Control | |
|--|--|
| 2.4G 5G | |
| 2.4GHz network SSID "Default_2 | 4G" |
| The Wireless Access Control feature car wireless network. | n be used to allow or disallow clients at specified MAC addresses to connect to your |
| Wirelass Assass Control | Disable V Access to Wireless Network |

Figure 5-5-15

The page includes the following fields:

| Object | Description | | |
|--------------------------|--|--|--|
| • MAC Address Filter: | Selecting "Disable" means to deactivate the MAC address filter feature. "Allow" means to only allow PCs at specified MAC addresses to connect to your wireless network while "Deny" means to only block PCs at specified MAC addresses from connecting to your wireless network. | | |
| MAC Address: | Enter the MAC addresses of a wireless client. | | |
| • Add: | Click it to add a new MAC to the MAC address list. | | |
| • Delete: | Click it to remove an existing entry. | | |

To allow only a PC at the MAC address of 00:aa:bb:11:22:33 to connect to your wireless network, do as follows:

Step 1. Select "Allow" from MAC Address Filter drop-down menu.

| 2.4G 5G | |
|--|--|
| 2.4GHz network SSID "Default_2.4G" | Save |
| The Wireless Access Control feature can be used to allow or disallow clients at specific wireless network. | ed MAC addresses to connect to your Restor |
| Wireless Access Control 🛛 📈 🛩 Access to Wireless Network | Help |
| MAC address | Action |
| | Add |



Step 2. Enter 00:aa:bb:11:22:33 in the MAC address box and click "Add".

Step 3. Click the "**Save**" button to save your settings and you can add more MAC addresses, if you like, simply repeating the above steps.

| Wireless Access Control | |
|---|--------------|
| 2.4G 5G | |
| 2.4GHz network SSID "Default_2.4G" | Save |
| The Wireless Access Control feature can be used to allow or disallow clients at specified MAC addresses to connect to y wireless network. | /our Restore |
| Wireless Access Control Allow Sccess to Wireless Network | Help |
| MAC address Action | |
| 00 aa bb 11 22 33 Add | |
| 00:aa:bb:11:22:33 Delete | |

Figure 5-5-17

5.5.7 Connection Status

This interface displays the information of currently connected 2.4G and 5G wireless clients (if any).

| 2.4G 5G | | | |
|-----------------------|------------------------|------------|------|
| 2.4GHz network SSII | D "Default_2.4G" | | Help |
| This section displays | | | |
| The currently connect | ed hosts list: Refresh | | |
| NO. | MAC address | Link speed | |
| 1 | 00:12:5F:08:C2:BB | 1.0 Mbps | |
| 2 | 00:aa:bb:11:22:33 | 300.0 Mbps | |

Figure 5-5-18

| 2.4G 5G | | | |
|----------------------------|--------------------------------|------------|------|
| 5GHz network SSID "De | efault_5G" | | Help |
| This section displays info | of connected wireless clients. | | |
| The currently connected ho | sts list: Refresh | | |
| NO. | MAC address | Link speed | |
| 1 | 00:15:00:58:2E:48 | 135.0 Mbps | |

Figure 5-5-19

5.5.8 Wireless – Advance Settings

This section allows you to configure advanced settings, including **Beacon interval**, **Fragment threshold**, **RTS threshold** and **DTIM interval**, etc, for both 2.4G and 5G wireless networks.

| AP Isolation | Enable | | Save |
|--------------------|--------|------------------------------------|-------|
| Beacon Interval | 100 | ms (range 20 - 999,default: 100) | Resto |
| Fragment Threshold | 2346 | (range: 256 - 2346, default: 2346) | Help |
| RTS Threshold | 2347 | (range: 1 - 2347, default: 2347) | |
| DTIM Interval | 1 | (range: 1 - 16384, default: 1) | |

| Object | Description |
|-------------------------|---|
| AP Isolation: | Isolates clients connecting to the private SSID. |
| | A time interval between any 2 consecutive Beacon packets sent by |
| Beacon Interval: | device. |
| | Note: Do NOT change the default value of 100 unless necessary. |
| Francisco | Enter a Fragment Threshold (256-2346). Any wireless packet exceeding |
| Fragment Threshold: | such set value will be divided into several fragments. |
| Theshold. | Note: DO NOT change the default value of 2346 unless necessary |
| | If a packet exceeds such set value, RTS/CTS scheme will be used to |
| | reduce collisions. Set it to a smaller value provided that there are distant |
| • RTS Threshold: | clients and interference. |
| | For normal SOHO, it is recommended to keep the default value |
| | unchanged; otherwise, device performance may be degraded |
| | A time interval between any two consecutive broadcast and multicast |
| | packet messages sent by the device to clients. |
| • DTIM Interval: | When such packets arrive at device's buffer, the device will send DTIM |
| | (delivery traffic indication message) and DTIM interval to wake |
| | clients up for receiving these packets. |

5.6 USB Applications

47611-WG4 built-in with one USB 2.0 port can be connected to a **USB printer** or **storage for file sharing**. It can auto recognized the USB printer or storage automatically without user experience. Thus all clients on the network can share printer or mass storage on 47611-WG4 without complicated network configuration. The USB port also output 5V DC power can charge any USB compliant devices.



* Sharing Printer and Mass Storage

5.6.1 USB Storage

Share a USB storage device with PC/Laptop on the local network of the 47611-WG4.

Insert a USB storage device, such as a flash drive or external hard drive, to the USB port on the right side of the 47611-WG4. The 47611-WG4 can automatically identify attached storage and load its root directory folder. Follow the directions below for your operating system.

| Enable Storage | | | | Save |
|----------------|-----------------------|-------------------------------------|---------------|-------|
| Device Name | 47611-WG4 | | | Resto |
| Workgroup | workgroup | | | Helr |
| ID | Add Enit Delete (To I | t users access shared resources, ad | d them here.) | |
| USB Device | | Remove US | B Device | |

Figure 5-6-1

The page includes the following fields:

| Object | Description |
|---------------|---|
| • Enable: | Check/uncheck to enable/disable file sharing feature. |
| Device Name: | Define a meaningful name to you for the device. |
| • Work Group: | Define a work group name for the device. |
| • Add: | Click to add an account. Up to 5 accounts can be added. |
| • Edit: | Click to edit an existing account. |
| • Delete: | Click to delete an existing account. |



Up to 5 users are allowed for server sharing.

Operation Instructions:

Step 1. Create an account.

1). Click "Add" to display a dialogue box below:

| USB Storage | | | - |
|------------------|--------------------------------|---|-------|
| Enable Storage | | | Save |
| Device Name | 47611-WG4 | | Resto |
| Workgroup | workgroup | | Help |
| 100 | | the second se | - |
| IJ | Add Entrance (To let users ad | ccess shared resources, add them here.) | |
| IU USB Device | Add Ent Annes Lib let users at | Remove USB Device | |
| USB Device | User Name | Remove USB Device | |
| USB/Device | User Name Password | Remove USB Device | |

Figure 5-6-2

- 2) Enter a user name and a password, which will be used by clients when accessing the USB storage device for sharing files thereon.
- 3) Re-type to confirm password and then click the "OK" button.

| Enable Storage | | Save |
|----------------|--|--------|
| Device Name | 47611-WG4 | Restor |
| Workgroup | workgroup | Help |
| ID | Add Edit Delete (To let users access shared resources, add them here.) | |
| 1 | Jack | |

Figure 5-6-3

Step 2. Set Access Right

First select an account and click USB Device. And then select a proper access right from below for each entry. Access authority is classified into three levels: R/W, R, and N.

| and a starting a | | |
|-------------------------------------|--|-----|
| Enable Storage | | Sa |
| Device Name | 47611-WG4 | Res |
| Workgroup | workgroup | He |
| ID | Add Edit Delete (To let users access shared resources, add them here.) | |
| | | |
| 1 | Jack | |
| 1 USB Device | Jack Remove USB Device | |
| 1 USB Device Disk_sda1 mp3 | Jack Remove USB Device R/W® BO NO | |

Figure 5-6-4

| R/W: | Read and Write right. |
|------|-----------------------|
| R: | Read right. |
| N: | No right. |

At last click "Save" to apply your settings.

Step 3. Access shared file

To access resources on such storage device, double click "My Computer" on your PC and enter <u>\\192.168.0.1</u>.

| UDRT731U (192.168.0.1) | |
|---|------------|
| <u>Elle Edit View Pavorites Tools H</u> elp | A 2 |
| 🔇 Back 🔹 🕥 🕐 🤌 Search 🤛 Folders 🛄 🕶 | |
| Address 😼 \\192.168.0.1 | 💌 🔁 Go |
| Network Tasks 📀 😥 Download 😥 mp3 | |
| Other Places System | |
| Details 🛛 🕉 | |
| | |
| | |
| | |
| | |
| | |

Figure 5-6-5

5.6.2 Printing Service

The USB printer service allows you to connect a USB printer to the device and thus all clients on your network can print anything they want on their PCs. The device can identify a printer automatically as long as it is successfully connected.

| Navigation Menus | Printer | |
|------------------|----------------|----------|
| Device Info | USB Printer | |
| ▶ Network | | Save |
| Security | Enable Printer | Restore |
| Advanced | | Trestore |
| ▶ Wireless | | Help |
| ▼ USB | | |
| • Storage | | |
| ▶ Printer | | |



| Object | Description |
|-----------------|--|
| Enable Printer: | Check/uncheck to enable/disable USB printer service. |
| | |

| 国合 1. | GDI interface printers are not supported. |
|---------|---|
| Note 2. | Multifunction printers are not supported. |

Operation Instructions

Step 1. Correctly connect your USB printer to the USB port on the device.



* Sharing Printer and Mass Storage

Figure 5-6-7

Step 2. Enable printer service.

The printer will be detected automatically and the printer's information will be shown.

| USB Frinter | | 12 |
|----------------|--------------|---------|
| Enable Printer | | Save |
| Printer | disconnected | Restore |



| USB Printer | | |
|----------------|------------------|---------|
| Enable Printer | | Save |
| Printer | HP LaserJet 1020 | Restore |
| | | Help |

Windows XP Users

The following steps apply to Windows XP.

Step 3. On your PC (connected to the device), click "Start"——"Settings"——"Printers and Faxes"



Figure 5-6-10

Step 4. Select "Add a printer" on appearing window.



Figure 5-6-11

Step 5. Click "Next".



Figure 5-6-12

Step 6. Select "Local printer attached to this computer" and click ""Next.



Figure 5-6-13

Step 7. Select "Create a new port", Type of port: "Standard TCP/IP Port" and click "Next".

| d Printer Wizard | |
|---|---|
| Select a Printer Port Computers communicat | te with printers through ports. |
| Select the port you war new port. | nt your printer to use. If the port is not listed, you can create a |
| \bigcirc <u>U</u> se the following po | nt: LPT1 (Recommended Printer Port) |
| The connector for t | his port should look something like this. |
| O Create a new port: | |
| Type of port: | Local Port 🛛 |
| | Local Port Microsoft Document Imaging Writer Monitor Standard TCP/IP Port |
| | <u>Cancel</u> |

Figure 5-6-14

Step 8. Click "Next".



Figure 5-6-15

Step 9. Enter device's LAN IP address and click "Next". (The default IP address of 47611-WG4 is 192.168.0.1)

| dd Port For which device do you want | to add a port? | 107 |
|---|---|-----|
| Enter the Printer Name or IP a | ddress, and a port name for the desired device. | |
| Printer Name or IP Address: | 192.168.0.1 | |
| Port Name: | IP_192.168.0.1 | |
| | | |

Figure 5-6-16

| Add Standard TCP/IP Printer Port Wizard | × |
|---|---|
| Additional Port Information Required The device could not be identified. | |
| The detected device is of unknown type. Be sure that: 1. The device is properly configured. 2. The address on the previous page is correct. Either correct the address and perform another search on the network by returning to the previous wizard page or select the device type if you are sure the address is correct. | |
| Device Type | |
| | |
| O <u>C</u> ustom <u>Settings</u> | |
| < <u>B</u> ack <u>N</u> ext > Cancel | |

Step 10. Click "Standard" under Device Type and select "Generic Network Card", then click "Next".

Figure 5-6-17

| Comple TCP/IP You have sel | ting the Add Standard P Printer Port Wizard ected a port with the following characteristics |
|----------------------------------|---|
| SNMP: | No |
| Protocol: | RAW, Port 9100 |
| Device: | 192.168.0.1 |
| Port Name: | IP_192.168.0.1 |
| Adapter Type | : Generic Network Card |
| To complete (| his wizard, click Finish. |

Step 11. Click "Finish".

Figure 5-6-18
Step 12. Select "Have Disk".

Select a suitable printer manufacturer and the printer model and click "**Next**". If your printer is not in the list, click "**Have Disk...**" to install the driver of the printer.

| Install Printer Software The manufacturer and | model determine which p | orinter software to use. | |
|--|---|---|---|
| Select the manufact disk, click Have Dis compatible printer se | urer and model of your p k. If your printer is not list ftware. | rinter. If your printer came (ed, consult your printer do | with an installation cumentation for |
| Manufacturer | Printers | | 0 |
| Agfa Alos | AGFA-Accu | Set v52.3 | - |
| Apollo | AGFA-Accu | 15et 800 | |
| APS-PS | GFA-Accu | Set 800SF v52.3 | ~ |
| This driver is digitally sign Tell me why driver signing | ned. g is important | Windows Update | Have Disk |

Figure 5-6-19

Step 13. Click "Browse", select corresponding drive file and click "Open". At last click "OK".



Figure 5-6-20

Step 14. Click "Next".

After installation, the printer model will be added to the list.

| nter Wizard | |
|--|--|
| Il Printer Software he manufacturer and model determine which printer software to use. | Ŷ |
| Select the manufacturer and model of your printer. If your printer came with an installat disk, click Have Disk. If your printer is not listed, consult your printer documentation fo compatible printer software. | tion r |
| s LaserJet 1020 LaserJet 1022 LaserJet 1022n LaserJet 1022nw | |
| s driver is digitally signed. I me why driver signing is important K Windows Update Have Disk K K K K | |
| | ter Wizard Printer Software e manufacturer and model determine which printer software to use. Select the manufacturer and model of your printer. If your printer came with an installa lisk, click Have Disk. If your printer is not listed, consult your printer documentation for compatible printer software. asserJet 1020 asserJet 1022 asserJet 1022 asserJet 1022n asserJet 1022nw driver is digitally signed. Windows Update Have Disk Market New Printer < Back |

Figure 5-6-21

Step 15. Define a name for the printer and click "Next".

| Name Your Printer | 1 |
|---|---|
| You must assign a name to this prin | iter. |
| Type a name for this printer. Becau name combinations of more than 31 possible. | se some programs do not support printer and server characters, it is best to keep the name as short as |
| Printer name: | |
| HP LaserJet 1020 | |
| Do you want to use this printer as th | ne default printer? |
| ⊙Yes | |
| O No | |
| | |
| | |
| | |
| | |

Figure 5-6-22

Step 16. Click "Finish".

Now you have added the network printer to the Windows XP PC successfully. The information of the printer is displayed in the following windows.

| Add Printer Wizard | |
|--------------------|---|
| Comple | eting the Add Printer |
| Wizard | d |
| You have s | uccessfully completed the Add Printer Wizard. |
| You specifie | ad the following printer settings: |
| Name: | HP LaserJet 1020 |
| Share name | × <not shared=""></not> |
| Port: | IP_192.168.0.1 |
| Model: | HP LaserJet 1020 |
| Default: | Yes |
| Test page: | Yes |
| To close thi | s wizard, click Finish. <u>Kancel</u> |

Figure 5-6-23



Figure 5-6-24

Windows 7 Users

The following steps apply to Windows 7.

Step 3. On your Windows 7 PC (connected to the device), click "Start"——"Device and Printer" and select "Add a printer" on appearing window.



Figure 5-6-25



Figure 5-6-26

Step 4. Click "Next".

Step 5. Select "Add a Local Printer" and click ""Next.



Figure 5-6-27

| Step 6. | Select " | Create a new | port", | , Type of | port: | "Standard | TCP/IP | Port' | ' and click | "Next". |
|---------|----------|--------------|--------|-----------|-------|-----------|--------|-------|-------------|---------|
|---------|----------|--------------|--------|-----------|-------|-----------|--------|-------|-------------|---------|

| A printer port is a type of con | nection that allows your computer to exchang | e information with a printe |
|---------------------------------|--|-----------------------------|
| ⑦ Use an existing port. | LPTI: (Panter Port) | |
| <u>Create a new port:</u> | | |
| Type of port: | Local Port Local Port | |
| | Standard TCP/IP Port | |
| | | |
| | | |

Figure 5-6-28

Step 7. Enter your 47611-WG4's LAN IP address and click "Next".

| Type a printer hostnar | ne or IP address |
|----------------------------|------------------------------------|
| Device type: | TCP/IP Device |
| Hostname or IP address: | 192,168.0.1 |
| Port name: | 47611-WG4 |
| Query the printer and auto | matically select the driver to use |

Figure 5-6-29

| Add Printer | |
|---|---|
| Detecting TCP/IP port | |
| Detecting the TCP/IP port Windows will automatically move to | the next page when the detection is done. |
| | |
| | |
| | Net Con |
| | Next Car |

Figure 5-6-30



| Additional por | t information required | |
|--|---|---|
| The device is not | found on the network. Be sure that: | |
| 1. The device is | turned on, | |
| 2. The network | is connected, | |
| 2 The desire in | | |
| The device is The address of | property configured. In the previous page is correct. | |
| The device is The address of If you think the a | propeny configured. on the previous page is correct. ddress is not correct, click Back to return to the | previous page. Then correct the |
| The device is The address of If you think the a address and performed device type below | property configured. on the previous page is correct. ddress is not correct, click Back to return to the orm another search on the network. If you are : w. | previous page. Then correct the sure the address is correct, select th |
| The device is The address of If you think the a address and performed device type below Device Type | property configured. on the previous page is correct. ddress is not correct, click Back to return to the orm another search on the network. If you are s w. | previous page. Then correct the sure the address is correct, select th |
| The device is The address of If you think the a address and performed device type below Device Type Standard | on the previous page is correct. ddress is not correct, click Back to return to the orm another search on the network. If you are s w. | previous page. Then correct the sure the address is correct, select th |

Figure 5-6-31

Step 9. Select "Have Disk".

| Choose your printe | er from the list. Click Windows Update to see more mo | dels. |
|----------------------|---|-------|
| To install the drive | r from an installation CD, click Have Disk. | |
| | | |
| | | |
| | | |
| Manufacturer | Printers | |
| Brother | Brother DCP-116C | |
| Canon | Brother DCP-117C | |
| Epson | Brother DCP-128C | |
| Fuji Xerox | Brother DCP-129C | |
| | | |

Figure 5-6-32

Step 10. Click "Browse", select corresponding drive file and click "Open". At last click "OK".



Figure 5-6-33

Step 11. Click "Next".

After installation, the printer model will be added to the list. Choose the right printer and click "Next".

| in Dean | I the printer driver | |
|---------|---|--|
| 1 | Choose your printer from the list. Click Windows Update to see more models. | |
| | To install the driver from an installation CD, click Have Disk. | |
| | | |
| | | |
| Printer | 45 | |
| HP | LaserJet 1020 | |
| HP | LaserJet 1022 | |
| HP | ' LaserJet 1022n | |
| HP | LaserJet 1022nw | |
| | | |

Figure 5-6-34

Step 12. Define a name for the printer and click "Next".

| Type a printer nar | me | | |
|---------------------------|---------------------------|----------------|--|
| Printer name: | HP LaserJet 1020 | | |
| This printer will be inst | alled with the HP LaserJe | t 1020 driver. | |
| and Constraints | | | |



Step 13. You can choose to share the printer or not. Then click "Next".

| Durington Classic | |
|---|--|
| Printer Sharin | 19 |
| If you want to sha type a new one. T | ire this printer, you must provide a share name. You can use the suggested name or 'he share name will be visible to other network users. |
| Do not share the | his printer |
| | |
| Share this print | ter so that others on your network can find and use it |
| Share this print Share name | ter so that others on your network can find and use it e: HP LaserJet 1020 |
| Share this print Share name Location: | ter so that others on your network can find and use it e: HP LaserJet 1020 |

Figure 5-6-36

Step 14. After installing the correct printer driver, the windows wizard shows the model name of the new network printer. You can choose to print a test page or click "Finish" to exit the wizard.

|) 🖷 Add Printer | |
|--|---|
| You've successfully added HP LaserJet 10 | 20 |
| To check if your printer is working properly, or to see t test page. Print a test page | roubleshooting information for the printer, print a |
| | <u>F</u> inish Cancel |

Figure 5-6-37

The new network printer that attached to the 47611-WG4 is now available for printing.

| | Hardware and So | und • Devices and Phr | iters • •7 ac | unth Devices and Phy | itters: | - 1 |
|---------------------|-------------------------------------|-----------------------|-------------------------|----------------------|---------|-----|
| Add a device | Add a printer | See what's printing | Manage default printers | 33 | - | 0 |
| Devices (2) | | | | | | |
| B | 100 | | | | | |
| 0 | | | | | | |
| Bluetooth Travel | 5220M | | | | | |
| Mouse | | | | | | |
| Printers and | Faxes (3) | | | | | |
| 1 | 1 | 1 | | | | |
| | MD I accelet | | | | | |
| FBA | 1020 X | PS | | | | |
| | Docu Wr | ment | | | | |
| | | | | | | |
| | | | | | | |
| - | HP LaserJet 1020 | State: 🥥 强 | Status: 0 docu | ment(s) in queue | | |
| 11 | | Model: HP LaserJet 10 | 020 | | | |

Figure 5-6-39

5.7 IPTV Settings

The IPTV feature makes it possible to enjoy online videos on your TV set via a set-top box while surfing Internet. See below for the topology:



| Navigation Menus | IPTV | | |
|------------------|---------------------------------------|---|---------|
| Device Info | IPTV | | |
| ▶ Network | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | - | Save |
| Security | Enable IPTV | | |
| Advanced | Enable IPTV STB Port | | Restore |
| ▶ Wireless | | | Help |
| ▶ USB | | | |
| * IPTV | | | |
| ▶ IP TV | | | |



The page includes the following fields:

| Object | Description |
|---------------------------|---|
| • Enable IPTV: | Check/uncheck to enable/disable the IPTV feature. |
| Enable IPTV STB Port: | Check/uncheck to enable/disable the IPTV-specific port. |

Note:

- 1. If you enabled both options mentioned above, then note below:
 - (a). Set IPTV connection type to DHCP/dynamic IP or static IP if the set-top box is connected to any LAN port from 1-3.
 - (b). Select the dial mode provided by your ISP if the set-top box is connected to the IPTV-specific port.

| IMPORTANT | Note that the IP address of the set-top-box or smart TV should be on the same IP |
|-----------|--|
| | net segment as router's WAN IP. |

- After the IPTV port is set for IPTV purpose, PC that connects to such port will not be able to obtain an IP address or access Internet. So think twice before you start. Plus, LAN ports1-3 can only be used to connect PCs instead of an IPTV set-top box.
- 3. The IPTV feature does not support wireless access.

5.8 Tools

System tools include the following 8 submenus. Clicking any of them enters corresponding interface for configuration. Below explains, in details, each such feature.

| ▼ Tools | |
|----------------------|---|
| Time&Date | |
| > Firmware Upgrade | |
| Backup&Restore | |
| Restore to Default | |
| • User Name&Password | |
| Reboot | |
| Statistics | |
| Logs | - |

5.8.1 Time Settings

This section assists you in setting the device's system time; you can either select to set the time and date manually or automatically obtain the GMT time from Internet.

| lime & Date | |
|--|---|
| This section assists you in setting the device's cur from Internet automatically. | rent time; you can either select to set the time and date manually or update it |
| Note: The configured time and date settings lose w the router connects to the Internet. To activate tim correctly first, either manually or automatically. | hen the device is powered off.However,it will be updated automatically whe e-based features(e.g.firewall),the time and date information shall be set |
| Sync with Internet time servers | Sync Interval: 2 hours 👻 |
| Time Zone: (GMT)Greenwich Mean Time | × |
| | |
| (Note: GMT time will be updated automatically of | only when the device is connected to Internet.) |
| (Note: GMT time will be updated automatically o Please input time and date: | only when the device is connected to internet.) |

Figure 5-8-1

The page includes the following fields:

| Object | Description |
|------------------------------------|---|
| • Sync with Internet time servers: | Time and date will be updated automatically from Internet. |
| Sync Interval: | Determines a time length when device periodically updates its time and date info from Internet. The default is 2 hours. |
| • Time Zone: | Select your current time zone. |
| Copy Local Time: | Click it to copy your PC's time to the device. |

5.8.2 Firmware Upgrade

Firmware upgrade is released periodically to improve the functionality of your device and also to add new features. If you run into a problem with a specific feature of the device, log on to our website <u>www.leviton.com</u> to download the latest firmware to update your device.

| Use this section to update your router's software for better functionality or new features. Select a Software File: Upgrade Current System Version: V2.0.1.0_EN ; Release Date:Sep 20 2012 | Firmware Upgrade | |
|--|--|--|
| Select a Software File: Browse Upgrade Current System Version: V2.0.1.0_EN ; Release Date:Sep 20 2012 | Use this section to update your router | 's software for better functionality or new features. |
| Current System Version: V2.0.1.0_EN ; Release Date:Sep 20 2012 | Select a Software File: | Browse Upgrade |
| | Current System Version: V2.0.1.0_EN | ; Release Date:Sep 20 2012 |
| Note: do not power off the router while upgrading otherwise it may be permanently damaged. Upgrading takes a few min | Note: do not power off the router whi | le upgrading otherwise it may be permanently damaged.Upgrading takes a few minutes |



To update firmware, do as follows:

- 1. Click "Browse" to locate the firmware and "Upgrade" to update.
- 2. Router will reboot automatically when upgrade completes.



Do not disconnect the device from your management PC (the PC you use to configure the device) or power off it during the upgrade process; otherwise, it may be permanently damaged. The device will restart automatically when the upgrade process, which takes several minutes, completes.

5.8.3 Backup/Restore Settings

This section allows you to backup current settings or to restore the previous settings configured on the device.

| ackup & Kestore | | | |
|--|-------------------------|-----------|--|
| Use this section to backup current setting | ngs or restore previous | settings. | |
| | | | |
| Save Settings to Local Hard Drive: | Backup | | |



The page includes the following fields:

| Object | Description |
|--------------------|---|
| Declara Cottinuos | Once you have configured the device the way you want it, you can save |
| | these settings to a configuration file on your local hard drive that can |
| | later be imported to your device in case that the device is restored to |
| • Backup Settings. | factory default settings. |
| | To do this, click the "Backup" button and specify a directory to save |
| | settings on your local hardware. |
| Restore Settings: | Click the "Browse" button to locate and select a configuration file that is saved previously to your local hard drive. And then click the "Restore" button to reset your device to previous settings. |

5.8.4 Restore to Factory Default Settings

To restore all settings to the device's factory default values, click the "Restore to Factory Default" button:

| estore to Default | |
|--|------|
| To restore factory defaults, click the "Restore to Factory Default" button below | Help |
| Restore to Factory Default | |



Factory Default Settings:

User Name: admin

Password: admin

IP Address: 192.168.0.1

Subnet Mask: 255.255.255.0



To activate your settings, you need to reboot the device after you reset it.

5.8.5 Change Password/User Name

This section allows you to change login password and user name for accessing device's Web-based interface.

| User Name & Passwo | rd | |
|--|---|--------|
| Use this section to change Note: User name and pass | your login user name and password. vord can only include letters, numbers or underscore! | Save |
| Old User Name | | Restor |
| Old Password | | Help |
| New User Name | | |
| New Password | | |
| Confirm New Password | | |

Figure 5-8-5

The page includes the following fields:

| Object | Description |
|-------------------------------|---|
| Old Password / User Name: | Enter the old password/user name. |
| New Password / User Name: | Enter a new password/user name. |
| Confirm New Password: | Re-enter the new password for confirmation. |
| • Save: | Click it to save new settings. |



For the sake of security, it is highly recommended that you change default login password and user name.

5.8.6 Reboot

This section allows you to reboot the device.

| leboot | _ |
|--|---|
| Reboot | |
| Click the button below to restart your router. | |
| Reboot | |

Figure 5-8-6

To restart your device, click the "Reboot" button.



Figure 5-8-7

| Reboot | | |
|---------------------|-----------------------------|--|
| Click the button be | low to restart your router. | |
| Reboot | | |
| | | |
| | | |
| | | |
| | Rebooting, please wait11% | |
| | | |
| | | |

Figure 5-8-8

5.8.7 Statistics

Statistics displays current traffic of PCs on your LAN.

You can view the bandwidth usage on your LAN using the statistics feature, for better management of network resources.

| Enable Tra | ffic Statistics | | | | | | |
|---------------|--------------------------------|----------|---------|--------------|---------------|------------|--------|
| Rate Unit: Kl | B/s (Kbyte per second) Refresh | | Display | In descendir | ig order of c | lownstream | rate 💙 |
| ID | IP Address | *Packets | 7Bytes | Packets | ↓Bytes | *Ratio | Rate |
| 1 | 192.168.0.105 | 0 | 0M | 0 | 0M | 0.00 | 0.00 |
| | the same a long | 0 | 014 | 0. | 0M | 0.00 | 0.00 |

Figure 5-8-9

The page includes the following fields:

| Object | Description |
|--------------------------------|---|
| Enable Traffic Statistics: | Check/uncheck the box to enable/disable the Traffic Statistics feature. |
| Refresh: | Click to update statistic data. |
| • Clear: | Click to remove statistic data. |
| | The quantitative relation between broadcast packets and the forwarded |
| Ratio: | packets. Normally, if this value exceeds 10%, there may be problems |
| | present in some PC on the network. |



Enabling the Traffic Statistics feature may degrade router's packet processing capacity. So, do not enable it unless necessary.

5.8.8 Syslog

The Syslog option allows you to view all events that occur upon system startup and check whether there is attack present in your network.

The logs are classified into 3 types: "All", "System "and "WAN".

| iew Lo | g | | | | |
|--------|---------------------|--------|-------------------------|------------------------------|--------|
| | | | | Type of logs to display: All | Refres |
| Index | | | Log Content | | clear |
| 2 | 1970-01-01 00:00:11 | system | DHCP_GUEST Server Start | | |
| Т | 1970-01-01 00:00:11 | system | DHCP Server Start | | |
| | | | Page 1 | | |

Figure 5-8-10

Chapter 6. Quick Connection to a Wireless Network

6.1 Windows XP (Wireless Zero Configuration)

Step 1: Right-Click on the wireless network icon displayed in the system tray





Step 2: Select [View Available Wireless Networks]





Step 3: Highlight and select the wireless network (SSID) to connect

- (1) Select SSID [LEVITON]
- (2) Click the [Connect] button



Figure 6-3

Step 4: Enter the encryption key of the Wireless Router

- (1) The Wireless Network Connection box will appear
- (2) Enter the encryption key that configured in section 5.6.2
- (3) Click the [Connect] button

| Wireless Network Cor | inection | X |
|--|---|---|
| The network 'Leviton' req A network key helps prev Type the key, and then cl | uires a network key (also called a WEP key or WPA key). ent unknown intruders from connecting to this network. ick Connect. | |
| Network key: | ***** | |
| Confirm network key: | | |
| | Connect Cance | |

Figure 6-4

Step 5: Check if "Connected" is displayed



Figure 6-5



Some laptops are equipped with an "Wireless ON/OFF" switch for the internal wireless LAN, make sure the hardware wireless switch is switch to "ON" position.

6.2 Windows 7 (WLAN AutoConfig)

WLAN AutoConfig service is built-in in Windows 7 that can be used to detect and connect to wireless network. This built-in wireless network connection tool is similar to wireless zero configuration tool in Windows XP.



Step 2: Highlight and select the wireless network (SSID) to connect

- (1) Select SSID [defauld_2.4G]
- (2) Click the [Connect] button

| Not connected | 47 | * |
|-----------------------------|--------|---|
| Connections are available | | |
| Wireless Network Connection | ^ | = |
| default_2.4G | llee | |
| Connect automatically | onnect | |
| default_5G | llee | |
| link | lites | |
| juntion_wap | litee | + |
| Open Network and Sharing | Center | |

Figure 6-7



Step 4: Enter the encryption key of the Wireless Router

- (1) The Connect to a Network box will appear
- (2) Enter the encryption key that configured in section 5.6.2
- (3) Click the [OK] button

| Connect to a Netwo | ork. |
|--------------------|--|
| Type the networ | k security key |
| Security key: | |
| | Hide characters |
| 6 | You can also connect by pushing the button on the router. |
| | OK Cancel |

Figure 6-8



Figure 6-9

Step 5: Check if "Connected" is displayed



Figure 6-10

6.3 Mac OS X 10.x

Step 1: Right-Click on the network icon displayed in the system trayThe AirPort Network Connection menu will appear



Figure 6-11

Step 2: Highlight and select the wireless network (SSID) to connect

- (1) Select and SSID [LEVITON]
- (2) Double-click on the selected SSID



Figure 6-12

Step 4: Enter the encryption key of the Wireless Router

- (1) Enter the encryption key that configured in section 5.6.2
- (2) Click the [OK] button

| 0 | The network | "LEVITON" requires a WPA password |
|----|-------------|--|
| ÷. | | requires a WPA password. |
| | Password: | |
| | | Show password Remember this network |
| | | |

Figure 6-13



If you will connect this Wireless Router in the future, check [Remember this network].

Step 5: Check if the AirPort is connect to the selected wireless network.

If "Yes", then there will be a "check" symbol in the front of the SSID.



Figure 6-14

6.4 iPhone / iPod Touch / iPad

Step 1: Tap the [Settings] icon displayed in the home screen



Figure 6-15

Step 2: Check Wi-Fi setting and select the available wireless network

- (1) Tap [General] \ [Network]
- (2) Tap [Wi-Fi]

If this is the first time to connect to the Wireless Router, it should shows "Not Connected".

| iPad | 10:35 AM | (a) 100% (m) |
|---------------------------|-------------------|--------------|
| Settings | General | |
| Airplane Mode OFF | | |
| Wi-Fi Not Connected | About | > |
| Notifications On | Usage | > |
| Carrier | Sounds | > |
| 🔣 Cellular Data | _ | _ |
| 🙀 Brightness & Wallpaper | Network | > |
| Picture Frame | Bluetooth | Off > |
| General | Location Services | On > |
| Mail, Contacts, Calendars | Spotlight Search | 2 |
| Safari | - | |

Figure 6-16



Figure 6-17

Step 3: Tap the target wireless network (SSID) in "Choose a Network..."

- (1) Turn on Wi-Fi by tapping "Wi-Fi"
- (2) Select SSID [LEVITON]

| Pad | 10:35 AM | 100% |
|---|---|---|
| Settings | Network Wi-Fi Netwo | orks |
| Wi-Fi Not Connected | WI-FI | ON |
| Carrier Cellular Data | LEVITON Other | ₽ ♥ 0 > |
| Brightness & Wallpaper | Ask to Join Networks Known networks will be joined | ON automatically. If no |
| General General Mail, Contacts, Calendars | known networks are available before joining a new | you will be itsked v network, |

Figure 6-18

Step 4: Enter the encryption key of the Wireless Router

- (1) The password input screen will be displayed
- (2) Enter the encryption key that configured in section 5.6.2
- (3) Tap the [Join] button



Figure 6-19

Step 5: Check if the iDevice is connect to the selected wireless network.

If "Yes", then there will be a "check" symbol in the front of the SSID.



Figure 6-20

Appendix A: Leviton Smart Discovery Utility

To easily list the device in your Ethernet environment, the Smart Discovery Utility from user's manual CD-ROM is an ideal solution.

The following installation instructions guide you to running the Smart Discovery Utility.

Step 1: Deposit the Leviton Smart Discovery Utility in administrator PC.



Step 2: Run this utility and the following screen appears.

| ٩ | 🔍 LEVITON Smart Discovery Lite | | | | | | | | |
|----|---|------------------|------------------|--------------|-------------|-------------|---------------|----------------|------------------|
| Fi | le <u>O</u> ption <u>H</u> elp | | | | | | | | |
| | | | U Refres | sh | 🚫 Exit | | | | |
| | MAC Address | Device Name | Version | DevicelP | NewPassword | IP Address | NetMask | Gateway | Description |
| 1 | 00-05-2F-04-B4-BA | 47611-WG4 | V2.0.4.2_EN_Pl | 192.168.0.1 | | 192.168.0.1 | 255.255.255.0 | 192.168.0.1 | Dual Band Router |
| | | | | | | | | | |
| | | | | | | | | | |
| | Select Adap | ter : 0.0.0.0 (0 | 0:05:2F:00:11:22 |) | | • | Control Pac | ket Force Broa | dcast |
| | | U | odate Device | Update Multi | Upda | te All | Connect to | Device | |
| De | Device : 47611-WG4 (00-30-4F-34-4B-C0) Get Device Information done. | | | | | | | | |

Step 3: Press "**Refresh**" button for current connected devices in the discovery list as shown in the following screen:

Step 4: Press "Connect to Device" button and then the Web login screen appears.



The fields in white background can be modified directly, and then you can apply the new setting by clicking the "**Update Device**" button.

Appendix B: Troubleshooting

If you found the router is working improperly or stop responding to you, please read this troubleshooting first before contacting the Leviton Tech Support for help,. Some problems can be solved by yourself within very short time.

| Scenario | Solution | |
|------------------------------|----------|---|
| The router is not responding | a. | Please check the connection of the power cord and the |
| to me when I want to access | | Ethernet cable of this router. All cords and cables should |
| it by web browser. | | be correctly and firmly inserted to the router. |
| | b. | If all LEDs on this router are off, please check the status |
| | | of power adapter, and make sure it is correctly powered. |
| | C. | You must use the same IP address section which router uses. |
| | d. | Are you using MAC or IP address filter? Try to connect |
| | | the router by another computer and see if it works; if not, |
| | | please reset the router to the factory default settings |
| | | (pressing 'reset' button for over 10 seconds). |
| | e. | Set your computer to obtain an IP address automatically |
| | | (DHCP), and see if your computer can get an IP |
| | | address. |
| | f. | If you did a firmware upgrade and this happens, contact |
| | | the Leviton Tech Support for help. |
| | g. | If all the solutions above don't work, contact the Leviton |
| | | Tech Support for help. |
| I can't get connected to the | a. | Go to 'Status' -> 'Internet Connection' menu, and check |
| Internet. | h | Rease be patient, compating Internet is just that slow |
| | D. | If you connect a computer to Internet directly before, try |
| | 0. | to do that again, and check if you can get connected to |
| | | Internet with your computer directly attached to the |
| | | device provided by your Internet service provider |
| | Ь | Check PPPoF / I 2TP / PPTP user ID and password |
| | u. | again. |
| | e. | Call your Internet service provide and check if there's |
| | | something wrong with their service. |
| | f. | If you just can't connect to one or more website, but you |
| | | can still use other internet services, please check |
| | | URL/Keyword filter. |
| | g. | Try to reset the router and try again later. |
| | h. | Reset the device provided by your Internet service |
| | | provider too. |
| | i. | Try to use IP address instead of hostname. If you can |
| | | use IP address to communicate with a remote server, |

| | but can't use hostname, please check DNS setting. |
|--------------------------------|---|
| I can't locate my router by my | a. 'Broadcast ESSID' set to off? |
| wireless device. | b. All two antennas are properly secured. |
| | c. Are you too far from your router? Try to get closer. |
| | d. Please remember that you have to input ESSID on your |
| | wireless client manually, if ESSID broadcast is disabled. |
| File download is very slow or | a. Are you using QoS function? Try to disable it and try |
| breaks frequently. | again. |
| | b. Internet is slow sometimes, being patient. |
| | c. Try to reset the router and see if it's better after that. |
| | d. Try to know what computers do on your local network. If |
| | someone's transferring big files, other people will think |
| | Internet is really slow. |
| | e. If this never happens before, call you Internet service |
| | provider to know if there is something wrong with their |
| | network. |
| I can't log into the web | a. Make sure you're connecting to the correct IP address of |
| management interface; The | the router! |
| password is wrong. | b. Password is case-sensitive. Make sure the 'Caps Lock' |
| | light is not illuminated. |
| | c. If you really forget the password, do a hard reset. |
| The router becomes hot | a. This is not a malfunction, if you can keep your hand on |
| | the router's case. |
| | b. If you smell something wrong or see the smoke coming |
| | out from router or A/C power adapter, please disconnect |
| | the router and A/C power adapter from utility power |
| | (make sure it's safe before you're doing this!), and call |
| | your dealer of purchase for help. |

Appendix C: Configuring the PC in Windows 7

In this section, we'll introduce how to configure the TCP/IP correctly in Windows 7. First make sure your Network Adapter is working, refer to the adapter's manual if needed.

- 1) On the Windows taskbar, click the Start button, and then click Control Panel.
- 2) Click the **Network and Sharing Center** icon, and then click the **Change adapter settings** on the left side of the screen.



Figure B-1

3) Right click the icon of the network adapter shown in the figure below, and select Properties on the prompt window.

| rganize | Disable this network device | iagnose this connection | » 📲 🕇 🗍 (|
|---------|--|---|-----------------------------|
| 8 | Bluetooth Network Connection Disabled Bluetooth Device (Personal Area | Local Area Connection Network cable unplu Broadcom NetLink (1 | on gged FM) Gigabit E |
| all. | Wireless Network Connection Disabled Intel(R) Wireless WiFi Link 4965AGN | Disable Status Diagnose | |
| | Bridge Connections Create Shortcut | | |
| | | Delete | |

Figure B-2

4) In the prompt page shown below, double click on the Internet Protocol Version 4 (TCP/IPv4).

| 📮 Local Area Connection Properties 📃 💌 | | | | | |
|--|--|--|--|--|--|
| Networking | | | | | |
| Connect using: | | | | | |
| Broadcom NetLink (TM) Gigabit Ethemet | | | | | |
| Configure This connection uses the following items: | | | | | |
| Client for Microsoft Networks QoS Packet Scheduler File and Printer Sharing for Microsoft Networks Internet Protocol Version 6 (TCP/IPv6) Internet Protocol Version 4 (TCP/IPv4) Internet Protocol Version 4 (TCP/IPv4) Ink-Layer Topology Discovery Mapper I/O Driver Ink-Layer Topology Discovery Responder | | | | | |
| Install Uninstall Properties Description | | | | | |
| wide area network protocol/internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks. | | | | | |
| OK Cancel | | | | | |

Figure B-3

5) The following **TCP/IP Properties** window will display and the **IP Address** tab is open on this window by default.

Now you have two ways to configure the **TCP/IP** protocol below:

Setting IP address automatically

Select Obtain an IP address automatically, Choose Obtain DNS server address automatically, as shown in the Figure below:

| Internet Protocol Version 4 (TCP/IPv4) | Properties | | | | | | |
|---|------------------------------------|--|--|--|--|--|--|
| General Alternate Configuration | | | | | | | |
| You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings. | | | | | | | |
| Obtain an IP address automatical | Obtain an IP address automatically | | | | | | |
| OUse the following IP address: | | | | | | | |
| IP address: | | | | | | | |
| Subnet mask: | | | | | | | |
| Default gateway: | | | | | | | |
| Obtain DNS server address autom | natically | | | | | | |
| OUse the following DNS server add | resses: | | | | | | |
| Preferred DNS server: | | | | | | | |
| Alternate DNS server: | | | | | | | |
| Validate settings upon exit | Advanced | | | | | | |
| | OK Cancel | | | | | | |

Figure B-4

Setting IP address manually

- 1 Select **Use the following IP address** radio button.
- 2 If the Router's LAN IP address is 192.168.0.1, type in IP address 192.168.0.x (x is from 2 to 254), and **Subnet mask** 255.255.255.0.
- 3 Type the Router's LAN IP address (the default IP is 192.168.0.1) into the **Default gateway** field.
- 4 Select Use the following DNS server addresses radio button. In the Preferred DNS Server field you can

| Internet Protocol Version 4 (TCP/IPv4) | Properties | | | | |
|---|---------------|--|--|--|--|
| General | 1 | | | | |
| You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings. | | | | | |
| Obtain an IP address automatical | ly | | | | |
| O Use the following IP address: | | | | | |
| IP address: | 192.168.0.123 | | | | |
| Subnet mask: | 255.255.255.0 | | | | |
| Default gateway: | 192.168.0.1 | | | | |
| Obtain DNS server address auton | natically | | | | |
| Ose the following DNS server add | resses: | | | | |
| Preferred DNS server: | 192.168.0.1 | | | | |
| Alternate DNS server: | · · · | | | | |
| Validate settings upon exit | Advanced | | | | |
| | OK Cancel | | | | |

type the DNS server IP address which has been provided by your ISP

Figure B-5

Now click **OK** to keep your settings.
Appendix D: Specifications

| | 47611-WG4 | | | |
|----------------------------------|---|--|--------------------------------|--|
| Product | 300Mbps Dual-Band 802.11n Wireless Gigabit Router | | | |
| Hardware Specification | | | | |
| | WAN Port: | 1 x 10/100/100 | 0Mbps Auto MDI/MDI-X RJ45 port | |
| Interface | LAN Port: | 3 x 10/100/1000Mbps Auto MDI/MDI-X RJ45 ports (LAN1~3) | | |
| | IPTV Port: | 1 x 10/100/1000Mbps Auto MDI/MDI-X RJ45 port (LAN4) | | |
| | USB Port : | USB Port : USB 2.0, Type-A, 5V DC/0.5A Output | | |
| Antenna | Gain: | ain: 2 x 5dBi fixed antenna | | |
| | Orientation: Omni-directional | | | |
| Reset / WPS Button | Reset / WPS button at rear panel | | | |
| | Press for about 7 seconds to reset the device to factory default. | | | |
| | Press for 1 second to activate WPS function. | | | |
| LED Indicators | PWR/SYS, WLAN (2.4G & 5G) x 2 | | | |
| | WAN (Link & 1000Mbps) x 1 | | | |
| | LAN (Link & 1000Mbps) x 3 | | | |
| | IPTV (Link & 1000Mbps) x 1 | | | |
| | USB, WPS | | | |
| Material | Plastic | | | |
| Dimension (WxDxH) | 171.61 x 111.16 x 25.47 mm (W x D x H) | | | |
| Weight | 8.81oz | | | |
| Power Requirement | 12V DC, 1A | | | |
| Wireless interface Specification | | | | |
| Standard | Compliance with IEEE 802.11a/b/g/n | | | |
| Frequency Band | Simultaneous 2.4 GHz and 5 GHz | | | |
| | 2.4GHz: 2.412~2.484GHz | | | |
| | 5GHz: 5.180~5.825GHz | | | |
| Transmission | Indoor up to 100m | | | |
| Distance | | | | |
| | 2.4GHz: | | 5GHz: | |
| RF Power | 11b: 17±1d | Bm | 11a: 12±1.5dBm | |
| (Intentional Radiator) | 11g: 14.5± | 1.5dBm | 11n: 12±1.5dBm | |
| (| 11n: 12.5± | 1.5dBm | | |
| Wireless Management Features | | | | |
| | | | | |
| Wireless Modes | | | | |
| WITCIESS MODES | ■ WDS PtMP | | | |
| | | | | |
| Encryption Security | ■ WEP (64/128-bit) | | | |
| | WPA-PSK (TKIP) / WPA2-PSK (AES) | | | |
| | ■ WPA (TKIP) / WPA2 (AES) | | | |
| Wiroloss Socurity | Provide Wireless LAN ACL (Access Control List) filtering | | | |
| Wireless Security | Provide vvirei | ess lan acl (ad | ccess Control List) filtering | |

| | Support WPS (WIFI Protected Setup) | | |
|-----------------------------|--|--|--|
| Wireless Advanced | Support Dual-SSID (2.4G & 5G) | | |
| | AP Isolation: Enable it to isolate each connected wireless client. | | |
| | Support 802.11e WMM (Wi-Fi Multimedia) | | |
| Max. Supported | Wire: 15 | | |
| Clients | Wireless: 10 | | |
| Router Features | | | |
| Internet Connection Type | Shares data and Internet access for users, supporting following internet access: Dynamic IP Static IP PPPoE PPTP L2TP | | |
| | PPPoE Dual Access | | |
| Firewall | NAT firewall | | |
| | Built-in NAT server which supports Virtual Server, and DMZ | | |
| | Built-in firewall with IP address filtering, Port filtering, URL filtering, and MAC | | |
| | address filtering | | |
| Routing Protocol | Static Routing | | |
| LAN | Built-in DHCP server supporting static IP address distributing | | |
| | Support UPnP, Dynamic DNS | | |
| | Support Packets Statistics | | |
| | IP-based Bandwidth Control | | |
| | Session Number: Max. 8000 | | |
| System Management | Web-based (HTTP) management interface | | |
| | Remote management (WAN Access Control) | | |
| | SNTP time synchronize | | |
| | System Log | | |
| OS Compatibility | Windows 7 | | |
| | Windows Vista | | |
| | Windows XP | | |
| | Mac OS X 10.4 and higher | | |

Appendix E: Glossary

- 802.11n 802.11n builds upon previous 802.11 standards by adding MIMO (multiple-input multiple-output). MIMO uses multiple transmitter and receiver antennas to allow for increased data throughput via spatial multiplexing and increased range by exploiting the spatial diversity, perhaps through coding schemes like Alamouti coding. The Enhanced Wireless Consortium (EWC) [3] was formed to help accelerate the IEEE 802.11n development process and promote a technology specification for interoperability of next-generation wireless local area networking (WLAN) products.
- 802.11b The 802.11b standard specifies a wireless networking at 11 Mbps using direct-sequence spread-spectrum (DSSS) technology and operating in the unlicensed radio spectrum at 2.4GHz, and WEP encryption for security. 802.11b networks are also referred to as Wi-Fi networks.
- 802.11g specification for wireless networking at 54 Mbps using direct-sequence spread-spectrum (DSSS) technology, using OFDM modulation and operating in the unlicensed radio spectrum at 2.4GHz, and backward compatibility with IEEE 802.11b devices, and WEP encryption for security.
- DDNS (Dynamic Domain Name System) The capability of assigning a fixed host and domain name to a dynamic Internet IP Address.
- DHCP (Dynamic Host Configuration Protocol) A protocol that automatically configure the TCP/IP parameters for the all the PC(s) that are connected to a DHCP server.
- DMZ (Demilitarized Zone) A Demilitarized Zone allows one local host to be exposed to the Internet for a special-purpose service such as Internet gaming or videoconferencing.
- DNS (Domain Name System) An Internet Service that translates the names of websites into IP addresses.
- > **Domain Name -** A descriptive name for an address or group of addresses on the Internet.
- DSL (Digital Subscriber Line) A technology that allows data to be sent or received over existing traditional phone lines.
- > **ISP** (Internet Service Provider) A company that provides access to the Internet.
- > MTU (Maximum Transmission Unit) The size in bytes of the largest packet that can be transmitted.
- NAT (Network Address Translation) NAT technology translates IP addresses of a local area network to a different IP address for the Internet.
- PPPoE (Point to Point Protocol over Ethernet) PPPoE is a protocol for connecting remote hosts to the Internet over an always-on connection by simulating a dial-up connection.

- SSID A Service Set Identification is a thirty-two character (maximum) alphanumeric key identifying a wireless local area network. For the wireless devices in a network to communicate with each other, all devices must be configured with the same SSID. This is typically the configuration parameter for a wireless PC card. It corresponds to the ESSID in the wireless Access Point and to the wireless network name.
- WEP (Wired Equivalent Privacy) A data privacy mechanism based on a 64-bit or 128-bit or 152-bit shared key algorithm, as described in the IEEE 802.11 standard.
- Wi-Fi A trade name for the 802.11b wireless networking standard, given by the Wireless Ethernet Compatibility Alliance (WECA, see http://www.wi-fi.net), an industry standards group promoting interoperability among 802.11b devices.
- WLAN (Wireless Local Area Network) A group of computers and associated devices communicate with each other wirelessly, which network serving users are limited in a local area.