



SmartHub



802.11 b/g/n Wireless Router

Model AWRT-550N

User's Manual

Rev. 1.0

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1. Introduction

Thank you for purchasing Asante AWRT-550N Smart Wireless N Router. The AWRT-550N Wireless N Router provides 2.4 GHz wireless frequency which allow more clean channels and less interference for your wireless network. A full range of security features such as WPA2-PSK, WPA-PSK, and WEP provide the highest level of wireless network security. The built-in SmartHub Web Configuration Utility has a unique 'Easy Set up' option that allows one to set up the router with no or minimum networking knowledge. The built-in Web Configuration Utility also has the regular path to set up the router with an easy-to-use user interface. AWRT-550N also has a USB port for connecting USB devices such as external hard drive, thumb drive or USB printer to the network. In this way, devices can be easily shared by users connected to the router.

SmartHub is a router with a very innovative design (Patent Pending) where offers user a smart way to reach and to manage this router. The innovative features of this design include :

- 1) It can smartly redirect a login page and authenticate user whenever user bring up a browser. - This significantly eliminates the burden to user who needs to remember the IP address and technologies and figure out how to access a router.
- 2) It can be reached by entering "smarthub" on any browser and anytime. This design makes SmartHub become a very friendly device instead of awkward IP address.
- 3) It can manage a list of user's name and password so that administrator can easily create/delete/monitor the user status without entering computer's machine ID(MAC address) or dynamic changing IP address).
- 4) Offers 2 levels of security system - (a) user access control and (b) wireless security where user can has it discretion to select its provisioning depend on its need. Today's Wifi encryption is a complex technology that vertically increase the challenge to all users to know how to use it. And yet, SmartHub gives a very efficient way and also retain wifi security requirements.
- 5) This access control method can persistently authenticate user whenever user's trying to reconnect to SmartHub. New user could be easily added on by creating a username and password in a minute. Likewise, it can be erased afterward and without changing entire security setting. Today's Wifi static system, administrator may need to force to change setting after new user is off and impact to all existing user to adopt new setting.
- 6) Smarthub's smart access control method could be disabled if user has no need to control security in this fashion. Simple go to Advanced Set Up-> management, and disable it.

1.1 Package Contents

Before you begin the installation, please check the items of your package:

- SmartHub AWRT-550N Wireless N Router
- Power Adapter
- Ethernet Cable (Cat.5)

- Manual CD
- Quick Installation Guide

If any item contained is damaged or missing, please contact your local dealer immediately. Also, keep the box and packaging materials in case you need to ship the unit in the future.

1.2 Features

- Smart Setup, Management, Control.
- 2.4GHz single band AP.
- More channels, less interference — ideal for wireless congested area
- Highest wireless data rate of up to 300Mbps* with 802.11n draft 2.0
- WPS button for easy connection with your WPS support wireless adapters
- Enjoy HD video streaming, gaming and VoIP with powerful 802.11n Wireless technology
- Advanced NAT+SPI firewall provides fully protection for your wireless connection
- QoS (Quality of Service) designed for prioritizing various data traffic to allow downloading files and playing movies, music, or online gaming at the same time with uninterrupted data streaming
- Supports Universal Plug and Play
- Fully backward compatible with 802.11 b/g

2. Connecting the Router

Note: Prior to connecting the router, be sure to power off your computer, DSL/Cable modem, and the router.

Step 1 Connect one end of a network cable to the **INTERNET(yellow)** port of the router and connect the other end of the cable to the DSL/Cable modem.

Step 2 With another network cable, connect one end of the cable to your computer's Ethernet port and connect the other end to one of the **LAN** ports of the router.

Step 3 Power on the DSL/Cable modem and wait for the lights on the modem to become stable.

Step 4 Plug the power adapter to the router and connect to an outlet or power strip.

Step 5 Power on your computer.

Step 6 Make sure the **INTERNET**, **WIRELESS**, and the **LAN** port that the computer is connected to are lit. If not, try the above steps again.

LED Indicators:



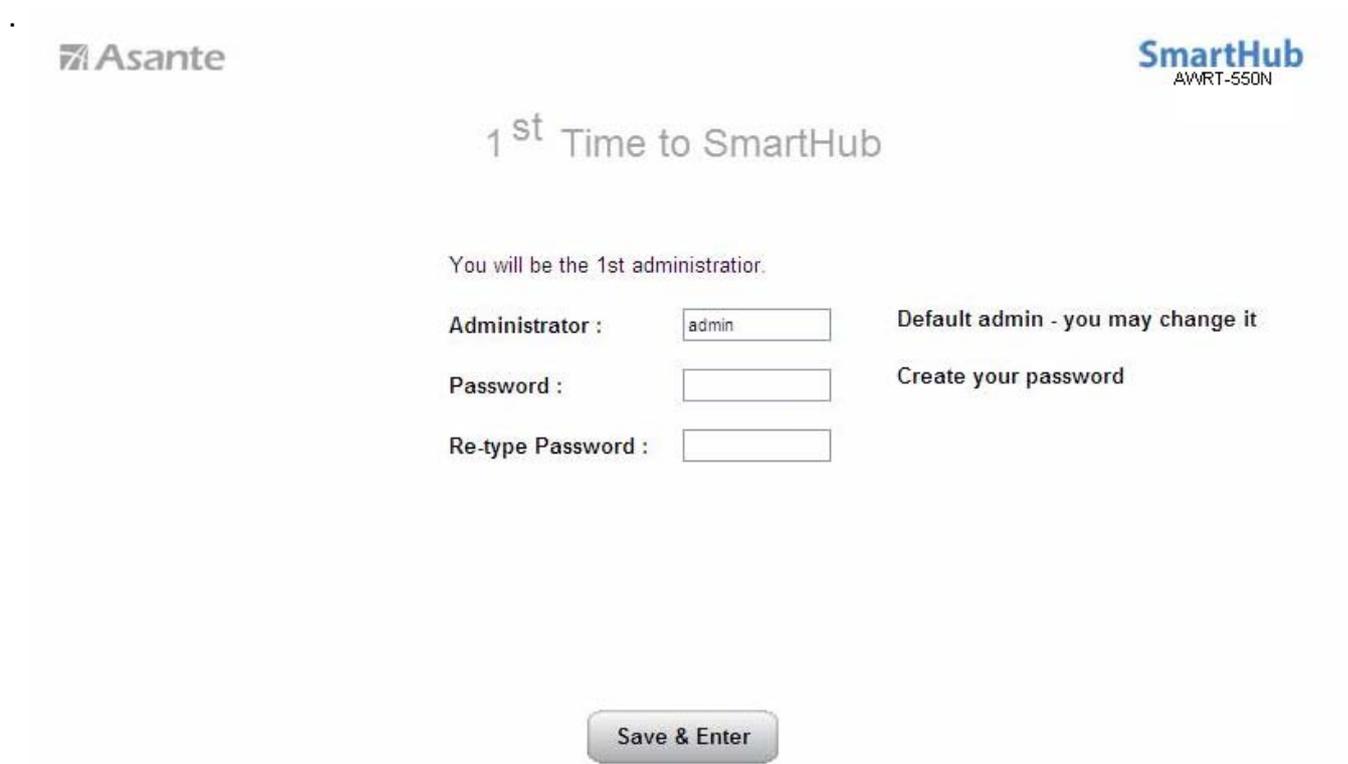
How the router connects:



3. Configuring the Router

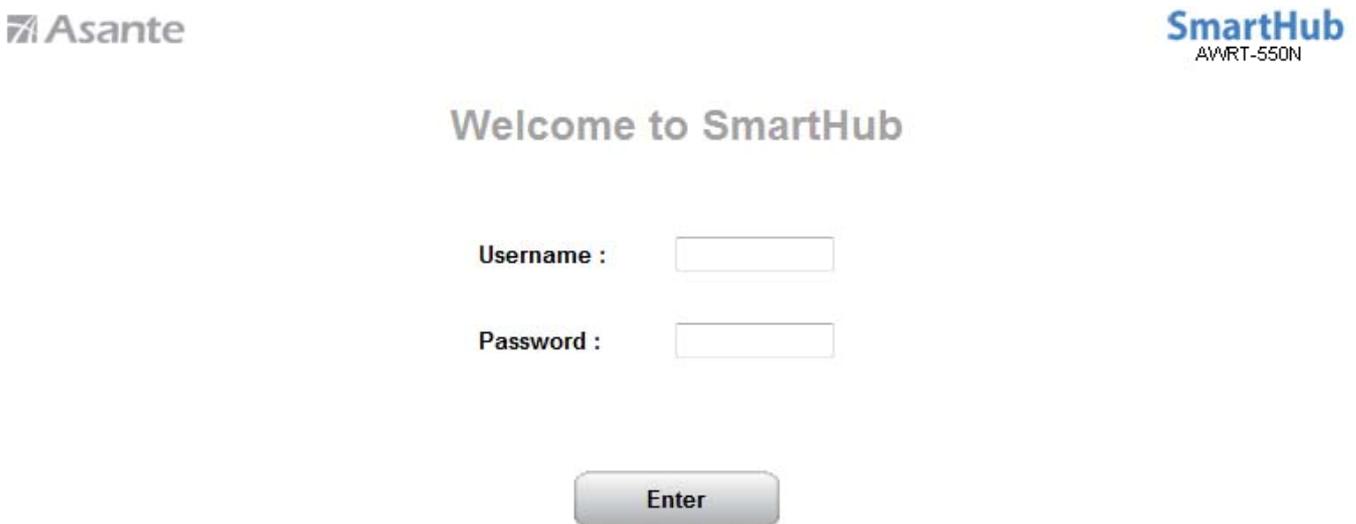
After all components in the previous picture are connected and powered up, follow the steps below to configure the router.

Step 1 Open the web browser (Internet Explorer/Mozilla Firefox/Safari/Chrome). If this is the first time, the logon page below should appear. Or you can type “smarthub” or “192.168.1.1” on the browser.



The screenshot shows the '1st Time to SmartHub' configuration page. At the top left is the Asante logo, and at the top right is the SmartHub logo with 'AWRT-550N' below it. The main heading is '1st Time to SmartHub'. Below this, it says 'You will be the 1st administrator.' There are three input fields: 'Administrator :', 'Password :', and 'Re-type Password :'. The 'Administrator' field contains the text 'admin'. To the right of the 'Administrator' field is the text 'Default admin - you may change it'. To the right of the 'Password' field is the text 'Create your password'. At the bottom center is a 'Save & Enter' button.

Otherwise the regular user page below will appear below after 1st administrator created the user profile.



The screenshot shows the 'Welcome to SmartHub' regular user page. At the top left is the Asante logo, and at the top right is the SmartHub logo with 'AWRT-550N' below it. The main heading is 'Welcome to SmartHub'. Below this are two input fields: 'Username :' and 'Password :'. At the bottom center is an 'Enter' button.

Step 2 Enter **admin** for both the username and password fields and click **OK**. The page below should appear.



Hi, Administrator

You may enter	<input type="button" value="Easy Set Up"/>	or
You may enter	<input type="button" value="Advanced Set Up"/>	or
	<input type="button" value="Check Status of Users On Line"/>	
	<input type="button" value="Exit / Start To Use"/>	

The sections below cover the '**Advanced Set Up**' option. The '**Easy Set Up**' will automatically guide you accordingly with online help menu. It is very simple and straightforward set up procedure which will not describe in this manual.

The Cable Modem

For most cable modem users, you should be able to connect to the Internet without any configuration. Automatic Configuration – DHCP is usually the default Internet Connection Type. If your ISP has provided you with a host name, enter it in the optional **Host Name** field. Click **Save Settings** to save the settings.

EZ Set Up | Basic Setup | DDNS | MAC Address Clone | Advanced Routing

Internet Setup

Internet Connection Type: Automatic Configuration - DHCP

Optional Settings (required by some Internet Service Providers)

Host Name: Asante

Domain Name: Asante

MTU: Auto Size: 1500

Network Setup

Router IP

IP Address: 192 . 168 . 1 . 1

Subnet Mask: 255.255.255.0

DHCP Server Setting

DHCP Server: Enabled Disabled

Start IP Address: 192 . 168 . 1 . 100

Maximum Number of Users: 50

IP Address Range: 192 . 168 . 1 . 100 to 149

Help Explain

If your ISP requires a registered MAC Address, click on the **MAC Address Clone** tab select **Enabled**, and click on the **Clone My PC's MAC** button. Click **Save Settings** to save the settings.

EZ Set Up | Basic Setup | DDNS | MAC Address Clone | Advanced Routing

MAC Address Clone

Enabled Disabled

MAC Address: 00 . 21 . 00 . 78 . 4C . 9D

Help Explain

If you have trouble connecting to the Internet, please refer to **Section 4, Verifying Connection**.

DSL

For DSL users, follow the steps below to configure the router.

Step 1 Select **PPPoE** from the drop-down menu.

The screenshot shows the Asante SmartHub AWRT-550N configuration interface. The left sidebar contains navigation options: EZ Set Up, Setup, Status, Wireless, Firewall, Access Policy, Application, and Administration. The main content area is titled "Internet Setup" and includes a breadcrumb trail: Basic Setup | DDNS | MAC Address Clone | Advanced Routing. The "Internet Connection Type" dropdown menu is open, showing options: PPPoE (selected), Automatic Configuration - DHCP, Static IP, PPTP, L2TP, and Telstra Cable. Below the dropdown, there is a "Service Name (Optional):" field. Two radio buttons are present: "Connect on Demand: Max Idle Time 5 Minutes" (unselected) and "Keep Alive: Redial Period 30 Seconds" (selected). The "Optional Settings (required by some Internet Service Providers)" section includes fields for "Host Name:" (Asante), "Domain Name:" (Asante), and "MTU:" (Auto, Size: 1492). A "Help Explain" link is visible on the right side of the page.

Step 2 Enter your username and password provided by your ISP.

The screenshot shows the Asante SmartHub AWRT-650N web interface. The top navigation bar includes 'EZ Set Up', 'Basic Setup', 'DDNS', 'MAC Address Clone', and 'Advanced Routing'. The left sidebar contains a menu with 'EZ Set Up' (highlighted), 'Setup', 'Status', 'Wireless', 'Firewall', 'Access Policy', 'Application', and 'Administration'. The main content area is titled 'Internet Setup' and contains the following fields and options:

- Internet Connection Type: PPPoE (dropdown)
- Username: [text input]
- Password: [text input]
- Service Name(Optional): [text input]
- Connect on Demand: Max Idle Time: 5 Minutes (radio button selected)
- Keep Alive: Redial Period: 30 Seconds (radio button selected)
- Optional Settings (required by some Internet Service Providers):
 - Host Name: Asante [text input]
 - Domain Name: Asante [text input]
 - MTU: Auto [dropdown], Size: 1492 [text input]

A 'Network Setup' section is visible at the bottom of the main content area. A 'Help Explain' link is located on the right side of the page.

Note: Depending on the ISP, you may need to include the domain name with your username.

Example: **username@sbcglobal.net**

Step 3 Click **Save Settings** to save the settings.

You should be able to connect to the Internet now with the wired computer. If you have trouble connecting to the Internet, please refer to **Section 4, Verifying Connection**.

Connect each of your wired computers to an available LAN port on the Router with an Ethernet cable, and then restart the computer. These computers should be able to connect to the Internet immediately.

4. Verifying Connection

If you have trouble connecting to the Internet, try the following steps.

Step 1 Power off the Cable/DSL modem, router, and computer and wait for **5 minutes**.

Step 2 Turn on the Cable/DSL modem and wait for the lights on the modem to settle down.

Step 3 Turn on the router and wait for the lights on the router to settle down.

Step 4 Turn on the computer.

Step 5 Log in to the router and select the **Status** tab.

Step 6 Verify that the **Internet IP Address**, **Default Gateway**, and at least one of the **DNS** fields have valid numbers assigned to them (instead of all 0's).

The screenshot displays the Asante SmartHub AWRT-550N web interface. The left sidebar contains navigation tabs: EZ Set Up, Setup, Status, Wireless, Firewall, Access Policy, Application, and Administration. The main content area is titled 'Router Information' and 'Internet Connection'. The 'Router Information' section lists: Firmware Version: 1.0.01, S/N: 1234567890, Current Time: Thu Nov 19 03:56:30 2009 (GMT -08:00), Internet MAC Address: 00:21:00:78:4C:9D, Host Name: Asante, and Domain Name: Asante. The 'Internet Connection' section shows: Connection Type: Automatic Configuration - DHCP, Internet IP Address: 0.0.0.0, Subnet Mask: 0.0.0.0, Default Gateway: 0.0.0.0, DNS: 0.0.0.0, and MTU: Auto. There are buttons for 'IP Address Release' and 'IP Address Renew' at the bottom of the Internet Connection section, and a 'Refresh' button at the bottom right. The Asante logo is in the top left, and the SmartHub AWRT-550N logo is in the top right. A 'Help Explain' link is on the right side.

If each field has a valid numbers(not all 0's) assigned, the router is connected to the Internet.

5. Connecting to the Router Wirelessly

Below are the default wireless settings of the router. You must configure your wireless network card to the same settings in order to establish a wireless connection to the router. Please refer to your wireless network card's manual on how to configure these settings.

SSID: **default**
Network Mode: **BGN-Mixed**
Authentication: **Open System**
Channel #: **6**
WEP: **disabled**

If you want to change the router's wireless and security settings, log in to the router and select the **Wireless** tab. Click on **Manual** button. Click **Save Settings** to save the settings after you make changes.

The screenshot shows the Asante SmartHub AWRT-550N web interface. The top left features the Asante logo, and the top right shows the SmartHub AWRT-550N logo. A navigation bar includes 'EZ Set Up' (highlighted), 'Basic Wireless Settings', 'Wireless Security', 'Wireless MAC Filter', and 'Advanced Wireless Settings'. A left sidebar contains menu items: 'Setup', 'Status', 'Wireless' (highlighted), 'Firewall', 'Access Policy', 'Application', and 'Administration'. The main content area is titled 'Basic Wireless Settings' and contains the following configuration options:

- Wireless Configuration: Manual Wi-Fi Protected Setup
- Network Mode: BGN-Mixed (dropdown)
- Network Name (SSID): SmartHub-AWRT600N (text input)
- Radio Band: Auto - 20/40MHz Channel (dropdown)
- Standard Channel: Auto (dropdown)
- Extension Channel: Auto (dropdown)
- SSID Broadcast: Enabled Disabled

At the bottom right, there are two buttons: 'Save Settings' and 'Cancel Changes'. A 'Help Explain' link is located on the right side of the main content area.

6. Web Configuration Utility

This router has a built-in web configuration utility that you can use to configure the router's settings. Simply log in to the router using your computer's web browser.

6.1 Setup

6.1.1 Setup > Basic Setup

This is the default screen when you log in to the router's web configuration utility and select 'Advanced Set Up'. You can setup your Internet connection here as well as configuring the Network and DHCP server settings and selecting your Time Zone.

The screenshot displays the 'Basic Setup' page of the Asante SmartHub web configuration utility. The interface includes a left-hand navigation menu with options like 'EZ Set Up', 'Setup', 'Status', 'Wireless', 'Firewall', 'Access Policy', 'Application', and 'Administration'. The main content area is titled 'Basic Setup' and contains several sections: 'Internet Setup' with a dropdown for 'Internet Connection Type' set to 'Static IP'; 'Optional Settings' for 'Host Name' and 'Domain Name' both set to 'Asante', and 'MTU' set to 'Auto' with a 'Size' of '1500'; 'Network Setup' for 'Router IP' with 'IP Address' set to '192.168.1.1' and 'Subnet Mask' set to '255.255.255.0'; 'DHCP Server Setting' with 'DHCP Server' checked as 'Enabled', 'Start IP Address' set to '192.168.1.100', 'Maximum Number of Users' set to '50', 'IP Address Range' set to '192.168.1.100 to 149', 'Client Lease Time' set to '0' minutes, and 'DNS' and 'WINS' fields all set to '0'; and 'Time Settings' with 'Time Zone' set to '(GMT-08:00) Pacific Time (USA & Canada)' and a checked box for 'Automatically adjust clock for daylight saving changes'. At the bottom right, there are 'Save Settings' and 'Cancel Changes' buttons. The Asante logo and SmartHub A00RT-6820M branding are visible at the top.

Internet Setup

There are six Internet Connection Types: DHCP, PPPoE, Static IP, PPTP, L2TP, and Telstra Cable.

Automatic Configuration - DHCP

When your ISP provides dynamic IP, you can keep this default setting (This is for most cable modem users). Usually you should be able to connect to the Internet without changing any configuration. If your ISP has provided you with a host name, enter it in

Asante

SmartHub
AWRT-550N

The screenshot shows the 'Internet Setup' page in the Asante SmartHub interface. The 'Internet Connection Type' is set to 'Automatic Configuration - DHCP'. Under 'Optional Settings', the 'Host Name' and 'Domain Name' are both set to 'Asante'. The 'MTU' is set to 'Auto' with a size of '1500'. Under 'Network Setup', the 'Router IP' is set to '192.168.1.1' and the 'Subnet Mask' is set to '255.255.255.0'. The left sidebar contains navigation options: EZ Set Up, Setup, Status, Wireless, Firewall, Access Policy, Application, and Administration. The top navigation bar includes Basic Setup, DDNS, MAC Address Clone, and Advanced Routing. A 'Help Explain' link is visible on the right side.

PPPoE

Usually DSL service provider uses PPPoE provide username and password given by

Asante

Asante

SmartHub
AWRT-550N

C Address Clone | Adv

The screenshot shows the 'Internet Setup' page in the Asante SmartHub interface for PPPoE configuration. The 'Internet Connection Type' is set to 'PPPoE'. Under 'Optional Settings', the 'Host Name' and 'Domain Name' are both set to 'Asante'. The 'MTU' is set to 'Auto' with a size of '1492'. Under 'Network Setup', the 'Router IP' is set to '192.168.1.1' and the 'Subnet Mask' is set to '255.255.255.0'. The 'Connect on Demand' option is selected with a 'Max Idle Time' of '5 Minutes'. The 'Keep Alive' option is also selected with a 'Redial Period' of '30 Seconds'. The left sidebar contains navigation options: EZ Set Up, Setup, Status, Wireless, Firewall, Access Policy, Application, and Administration. The top navigation bar includes Basic Setup, DDNS, MAC Address Clone, and Advanced Routing. A 'Help Explain' link is visible on the right side.

Static IP

Select Static IP if your ISP provided you the static IP address, Subnet Mask, Default Gateway and DNS server addresses for Internet connection.

The screenshot shows the 'Internet Setup' page of an Asante router. The 'Internet Connection Type' is set to 'Static IP'. The configuration fields are as follows:

Internet IP Address:	192	168	1	122
Subnet Mask:	255	255	255	0
Default Gateway:	192	168	1	1
DNS 1:	61	31	233	1
DNS 2(Options):	211	78	215	137
DNS 2(Options):	211	78	215	200

Optional Settings (required by some Internet Service Providers):

Host Name:	Asante		
Domain Name:	Asante		
MTU:	Auto	Size:	1500

PPTP

Point-to-Point Tunneling Protocol (PPTP) is a service that applies to connections in Europe only. Enter the Internet connection information provided by your ISP accordingly.

The screenshot shows the 'Internet Setup' page of an Asante router. The 'Internet Connection Type' is set to 'PPTP'. The configuration fields are as follows:

Obtain an IP Address Automatically.

Specify an IP Address

Address:	0	0	0	0
Subnet Mask:	0	0	0	0
Default Gateway Address:	0	0	0	0
DNS:	0	0	0	0

Server IP Address: 0 . 0 . 0 . 0

Username:

Password:

Connect on Demand: Max Idle Time Minutes.

Keep Alive: Redial Period Seconds.

Optional Settings (required by some):

Host Name:	Asante
------------	--------

L2TP

L2TP is a service that applies to connections in Israel only. Enter the Internet connection information provided by your ISP accordingly.

Asante **SmartHub**
AWRT-800N

EZ Set Up | Basic Setup | DDNS | MAC Address Clone | Advanced Routing

Internet Setup

Internet Connection Type: L2TP

Internet IP Address : 0 . 0 . 0 . 0

Username:

Password:

Connect on Demand:Max Idle Time 5 Minutes.

Keep Alive:Redial Period 30 Seconds.

Optional Settings (required by some): Host Name:

Help Explain

Telstra Cable

Telstra Cable is a service that applies to connections in Australia only. Enter the Internet connection information provided by your ISP accordingly.

Asante **SmartHub**
AWRT-550N

EZ Set Up | Basic Setup | DDNS | MAC Address Clone | Advanced Routing

Internet Setup

Internet Connection Type: Telstra Cable

Internet IP Address : 0 . 0 . 0 . 0

Username:

Password:

Connect on Demand:Max Idle Time 5 Minutes.

Keep Alive:Redial Period 30 Seconds.

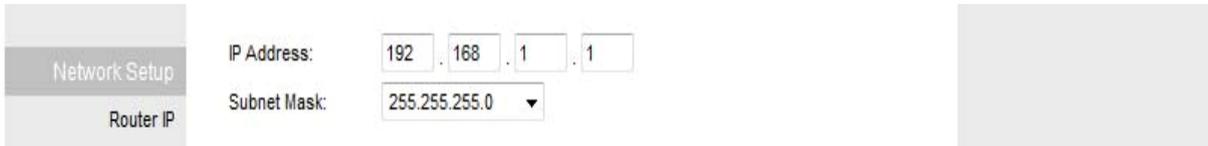
Optional Settings (required by some Internet Service Providers): Host Name:
Domain Name :
MTU : Auto Size:

Help Explain

Network Setup

Router IP

You can change the Router's IP Address and its Subnet Mask for the local network.

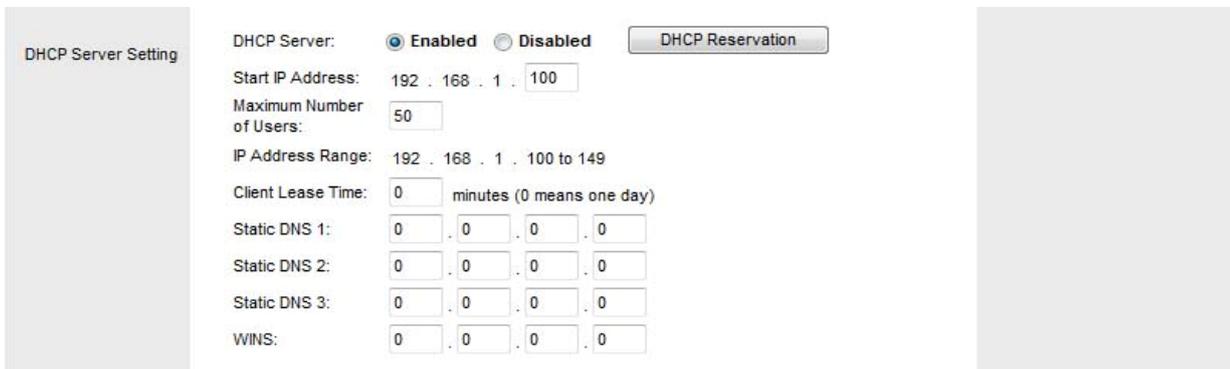


Network Setup
Router IP

IP Address: 192 . 168 . 1 . 1
Subnet Mask: 255.255.255.0

DHCP Server Setting

The Router has a built-in DHCP server which can dynamically assign IP address to each device on your network. The **DHCP Server** is **Enabled** by default, if you already have a DHCP server on the network, you need to select **Disabled**.



DHCP Server Setting

DHCP Server: Enabled Disabled

Start IP Address: 192 . 168 . 1 . 100
Maximum Number of Users: 50
IP Address Range: 192 . 168 . 1 . 100 to 149
Client Lease Time: 0 minutes (0 means one day)
Static DNS 1: 0 . 0 . 0 . 0
Static DNS 2: 0 . 0 . 0 . 0
Static DNS 3: 0 . 0 . 0 . 0
WINS: 0 . 0 . 0 . 0

Start IP Address: Give a value for the dynamically assigning IP address to start with. Because the Router's default IP address is **192.168.1.1**, the Starting IP Address must be 192.168.1.2 or greater, but smaller than 192.168.1.253. The default Starting IP Address is **192.168.1.100**.

Maximum Number of Users: Enter the maximum number of PCs that you want the DHCP server to assign IP addresses to. This number cannot be greater than 253. The default is **50**.

Client Lease Time: The Client Lease Time is the amount of time a network user will be allowed connection to the Router with their current dynamic IP address. The default is 24 hours.

Static DNS 1~3: Enter up to 3 DNS addresses for your network.

DHCP Reservation: If you want to assign a static IP Address to one of the computers in your network, click on the **DHCP Reservation** button.

DHCP Reservation

Select Client from DHCP Tables

Client Name	Interface	IP Address	MAC Address	Select
Nghiep-Le-PC	LAN	192.168.1.100	00:1B:24:AA:FA:A2	<input type="checkbox"/>

Manually Add Client

Enter Client Name	Assign IP Address	To This MAC Address	
<input type="text"/>	<input type="text" value="192.168.1.0"/>	<input type="text" value="00:00:00:00:00:00"/>	<input type="button" value="Add"/>

Clients Already Reserved

Client Name	Assign this IP	To This MAC Address	MAC Address
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Step 1 Enter the Static IP Address in the **Assign this IP** field.

Step 2 Enter the MAC address of the corresponding computer in the **To this MAC** field.

Step 3 Check the **Add** button.

Step 4 Click **Save Settings**.

Time Settings

Set up the time zone and daylight saving for the Router.

Time Settings

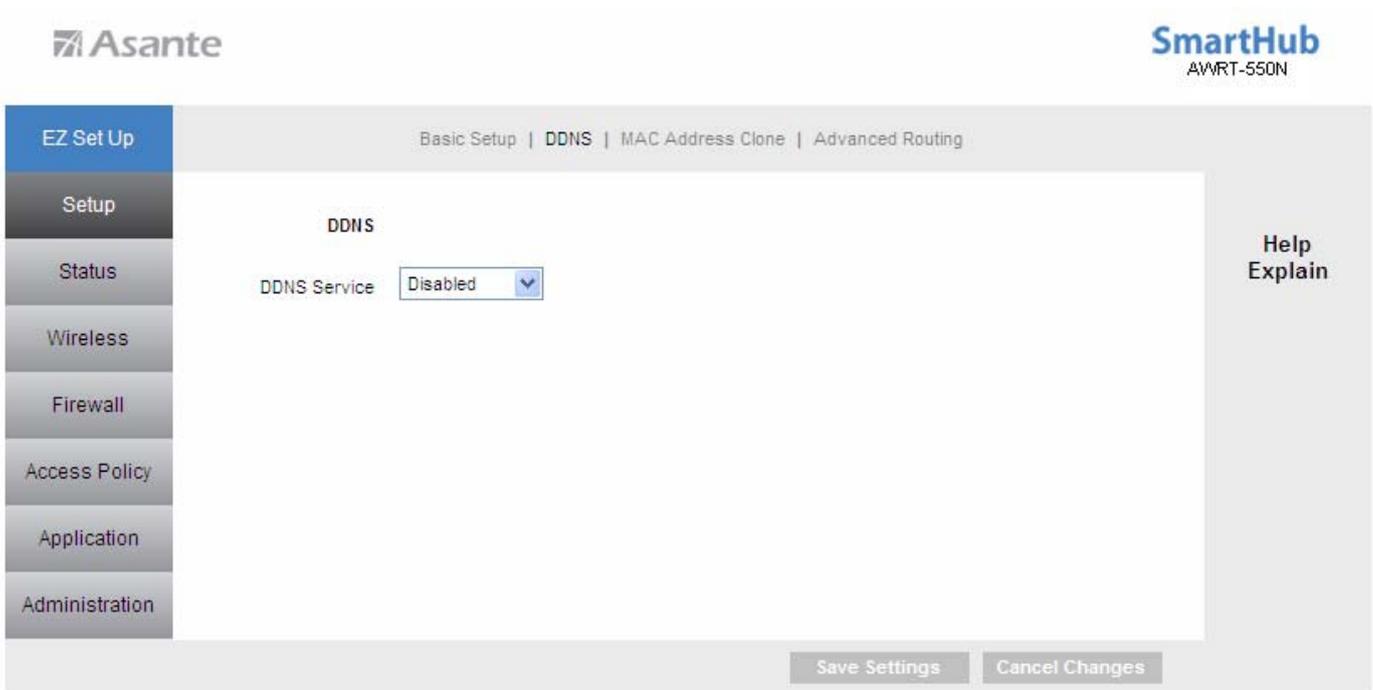
Time Zone

Automatically adjust clock for daylight saving changes.

Automatically adjust clock for daylight saving changes.

6.1.2 Setup > DDNS

Dynamic DNS (DDNS) allows any user who wishes to access your server to reach it by a registered DNS name instead of an IP address. Before you enable **DDNS**, you need to register an account with one of the DDNS providers listed in the drop-down menu.



To Enable DDNS, select the DDNS provider you have registered with and enter the required fields. Click **Save Settings** to save the settings.

6.1.3 Setup > MAC Address Clone

Some ISPs require a registered MAC address to access the Internet. You can use the following steps to clone your PC's registered MAC address to access the Internet.

The screenshot shows the Asante SmartHub AWRT-550N web interface. The top left features the Asante logo, and the top right shows the SmartHub AWRT-550N logo. A navigation bar at the top includes links for Basic Setup, DDNS, MAC Address Clone (the current page), and Advanced Routing. On the left, a vertical menu lists various settings categories: EZ Set Up, Setup (selected), Status, Wireless, Firewall, Access Policy, Application, and Administration. The main content area is titled 'MAC Address Clone' and contains two radio buttons: 'Enabled' (selected) and 'Disabled'. Below this, the 'MAC Address:' field is populated with '00 - 21 - 00 - 78 - 4C - 9D'. A button labeled 'Clone My PC's MAC' is positioned below the MAC address field. At the bottom right of the main content area, there are two buttons: 'Save Settings' and 'Cancel Changes'. On the far right, a 'Help Explain' link is visible.

Step 1 Check the radio button **Enabled** .

Step 2 Click the **Clone My PC's MAC** button.

Step 3 Click **Save Settings** to save the settings.

6.1.4 Setup > Advanced Routing

You can configure your own static routing table using the Advanced Routing function.

The screenshot shows the 'Advanced Routing' configuration page in the Asante SmartHub interface. The page is titled 'Advanced Routing' and includes a breadcrumb trail: 'Basic Setup | DDNS | MAC Address Clone | Advanced Routing'. The left sidebar contains navigation options: 'EZ Set Up', 'Setup', 'Status', 'Wireless', 'Firewall', 'Access Policy', 'Application', and 'Administration'. The main content area is divided into three sections: 'NAT', 'Dynamic Routing (RIP)', and 'Static Routing'. The 'NAT' section has 'Enabled' selected. The 'Dynamic Routing (RIP)' section has 'Disabled' selected. The 'Static Routing' section features a 'Route Entries' dropdown menu showing '1 ()' and a 'Delete This Entry' button. Below this are input fields for 'Enter Route Name:', 'Destination LAN IP:', 'Subnet Mask:', and 'Gateway:', each with a four-digit input box. The 'Interface' dropdown is set to 'LAN & Wireless'. A 'Show Routing Table' button is located at the bottom of the form. At the bottom right of the page are 'Save Settings' and 'Cancel Changes' buttons. The Asante logo is in the top left, and the SmartHub AWRT-550N logo is in the top right. A 'Help Explain' link is on the right side.

To see the current routing table, click on **Show Routing Table** button.

Be sure to click **Save Settings** to save each entry.

6.2. Wireless

6.2.1 Wireless > Basic Wireless Settings

Asante SmartHub AWRT-550N

EZ Set Up | Basic Wireless Settings | Wireless Security | Wireless MAC Filter | Advanced Wireless Settings

Setup | Status | **Wireless** | Firewall | Access Policy | Application | Administration

Help Explain

Basic Wireless Settings

Wireless Configuration: Manual Wi-Fi Protected Setup

Wi-Fi Protected Setup
Please check if your PC has WPS button. If yes, there are 2 options. That you can easily sync up with Smarthub.:

1. If your PC has WPS button. Please click it and press below WPS 
2. If your PC has WPS PIN number, Please enter number here

Wi-Fi Protected Setup Status:	Configured
Network Name (SSID):	SmartHub-AWRT600N
Security:	Disabled

Wireless Configuration - Manual

To configure the Wireless settings, click radio button **Manual**.

You can configure the router's basic wireless settings on this screen.

The screenshot shows the 'Basic Wireless Settings' page for the Asante SmartHub AWRT-550N. The page has a navigation menu on the left with 'Wireless' selected. The main content area is titled 'Basic Wireless Settings' and includes the following fields and options:

- Wireless Configuration: Manual Wi-Fi Protected Setup
- Network Mode: BGN-Mixed (dropdown)
- Network Name (SSID): SmartHub-AWRT600N (text input)
- Radio Band: Auto - 20/40MHz Channel (dropdown)
- Standard Channel: Auto (dropdown)
- Extension Channel: Auto (dropdown)
- SSID Broadcast: Enabled Disabled

Buttons for 'Save Settings' and 'Cancel Changes' are located at the bottom of the page.

Network Mode: If you have 802.11b/g/n 2.4GHz devices on the wireless network, select **BGN-Mixed**. If you have 802.11a/n 5GHz devices on the wireless network, select **AN-Mixed**.

Note: If your wireless computer cannot detect the router after you selected AN-Mixed, please make sure your wireless adapter supports 5GHz frequency band.

Network Name (SSID): You can change the router's SSID in this field. Once you have changed the SSID, your network clients need to re-connect themselves using the new SSID.

Channel: Select the desired channel. All the network clients need to use the same channel.

Radio Band: For best performance in a network, keep the default, **Auto – 20/40MHz Channel**.

Standard Channel: If you selected Auto – 20/40MHz Channel for the Radio Band setting, then this setting will be your primary Wireless N channel. If you are not sure which channel to select, keep the default, **Auto**.

Extension Channel: Select the extension channel for Wireless N extended radio band. If you are not sure which channel to select, keep the default, **Auto**.

SSID Broadcast: Choose to enable or disable the broadcast of your SSID (wireless network name).

6.2.2 Wireless > Wireless Security

You can configure wireless security such as WPA2 or WEP encryption on this screen.

Note: WPA2 Personal is the most secured encryption mode for general users. WEP is the most common encryption but the least secured. It is recommended to use WPA2 Personal AES for your wireless security if all the wireless devices on your network support this mode. All of the wireless clients must use the same security settings in order to connect to the router.

WEP

To enable WEP, select **WEP** from the **Security Mode**.

The screenshot displays the 'Wireless Security' configuration page on the Asante SmartHub AWRT-550N router. The page is part of the 'EZ Set Up' menu, with a breadcrumb trail: 'Basic Wireless Settings | Wireless Security | Wireless MAC Filter | Advanced Wireless Settings'. The 'Wireless Security' section is active, showing the following settings:

- Security Mode:** WEP (selected from a dropdown menu)
- Encryption:** 40 / 64-bit (10 hex digits) (selected from a dropdown menu)
- Passphrase:** An empty text input field with a 'Generate' button to its right.
- Key 1:** An empty text input field.
- Key 2:** An empty text input field.
- Key 3:** An empty text input field.
- Key 4:** An empty text input field.
- TX Key:** 1 (selected from a dropdown menu)

At the bottom of the page, there are two buttons: 'Save Settings' and 'Cancel Changes'. The Asante logo is in the top left, and the SmartHub AWRT-550N logo is in the top right. A 'Help Explain' link is located on the right side of the page.

Encryption: Choose **64 bits** or **128 bits**

Passphrase: You can enter a passphrase and click on the **Generate** button and the router will automatically generate four WEP keys for you.

WEP Key 1 – 4: Manually assign a passphrase for each key. If you selected **64 bits** encryption, enter **10** HEX characters (0-F) for each key. If you selected **128 bits** encryption, enter **26** HEX characters (0-F) for each key.

TX Key: Select a key to be the active key.

Click **Save Settings** to save the settings.

WPA Personal

Select **WPA Personal** from the **Security Mode**.

The screenshot displays the 'Wireless Security' configuration page for an Asante SmartHub AWRT-550N router. The page is titled 'Wireless Security' and shows the following settings:

- Security Mode:** WPA Personal (selected in a dropdown menu)
- Encryption:** AES (selected in a dropdown menu)
- Passphrase:** (empty text input field)
- Key Renewal:** 3600 seconds (text input field)

The page includes a navigation menu on the left with options: EZ Set Up, Setup, Status, Wireless, Firewall, Access Policy, Application, and Administration. The Asante logo is in the top left, and SmartHub AWRT-550N is in the top right. A 'Help Explain' link is on the right side. At the bottom, there are 'Save Settings' and 'Cancel Changes' buttons.

Encryption: Select either **TKIP** or **AES** as the encryption method.

Passphrase: Enter a passphrase between 8 to 63 characters long.

Key Renewal: Enter the desired key renewal time in seconds.

Click **Save Settings** to save the settings.

WPA2 Personal

Select **WPA2 Personal** from the **Security Mode**.

The screenshot displays the 'Wireless Security' configuration page for an Asante SmartHub AWRT-550N. The page features a left sidebar with navigation options: EZ Set Up, Setup, Status, Wireless, Firewall, Access Policy, Application, and Administration. The main content area is titled 'Wireless Security' and contains the following settings:

- Security Mode:** WPA2 Personal (dropdown menu)
- Encryption:** TKIP or AES (dropdown menu)
- Passphrase:** (empty text input field)
- Key Renewal:** 3600 seconds (text input field with 'seconds' label)

At the bottom of the page, there are two buttons: 'Save Settings' and 'Cancel Changes'. On the right side of the page, there is a 'Help Explain' link.

Encryption: Select either **TKIP** or **AES** as the encryption method.

Passphrase: Enter a passphrase between 8 to 63 characters long.

Key Renewal: Enter the desired key renewal time in seconds.

Click **Save Settings** to save the settings.

WPA Enterprise

Select **WPA Enterprise** from the **Security Mode**.

Asante SmartHub AWRT-550N

Basic Wireless Settings | **Wireless Security** | Wireless MAC Filter | Advanced Wireless Settings

Setup
Status
Wireless
Firewall
Access Policy
Application
Administration

Help Explain

Wireless Security

Security Mode: WPA Enterprise

Encryption: TKIP

RADIUS Server: 0 . 0 . 0 . 0

RADIUS Port: 1812

Shared Secret:

Key Renewal: 3600 seconds

Save Settings Cancel Changes

Encryption: Select either **TKIP** or **AES** as the encryption method.

RADIUS Server: Enter the IP Address of your RADIUS server.

RADIUS Port: Enter the port number of your RADIUS server.

Shared Secret: Enter the shared key.

Key Renewal: Enter the desired key renewal time in seconds.

Click **Save Settings** to save the settings.

WPA2 Enterprise

Select **WPA2 Enterprise** from the **Security Mode**.

The screenshot shows the Asante SmartHub AWRT-550N configuration interface. The top left features the Asante logo, and the top right shows the SmartHub AWRT-550N logo. A navigation bar at the top includes 'EZ Set Up' (highlighted), 'Basic Wireless Settings', 'Wireless Security', 'Wireless MAC Filter', and 'Advanced Wireless Settings'. A left sidebar contains menu items: 'Setup', 'Status', 'Wireless' (highlighted), 'Firewall', 'Access Policy', 'Application', and 'Administration'. The main content area is titled 'Wireless Security' and contains the following settings:

- Security Mode: WPA2 Personal (dropdown menu)
- Encryption: TKIP or AES (dropdown menu)
- Passphrase: (empty text input field)
- Key Renewal: 3600 (text input field) seconds

At the bottom right of the main content area, there are two buttons: 'Save Settings' and 'Cancel Changes'. A 'Help Explain' button is located on the right side of the interface.

Encryption: Select either **TKIP** or **AES** as the encryption method.

RADIUS Server: Enter the IP Address of your RADIUS server.

RADIUS Port: Enter the port number of your RADIUS server. Default is 1812.

Shared Secret: Enter the shared key.

Key Renewal: Enter the desired key renewal time in seconds.

Click **Save Settings** to save the settings.

Radius

This option features WEP used in coordination with a RADIUS server. (This should only be used when a RADIUS server is connected to the Router.)

The screenshot displays the 'Wireless Security' configuration page. The 'Security Mode' is set to 'RADIUS'. The 'RADIUS Server' is '0.0.0.0' and the 'RADIUS Port' is '1812'. The 'Shared Secret' field is empty. The 'Encryption' is set to '40 / 64-bit (10 hex digits)'. There is a 'Passphrase' field with a 'Generate' button. Below that are four 'Key' fields (Key 1, Key 2, Key 3, Key 4) and a 'TX Key' dropdown menu set to '1'. The page has a sidebar on the left with 'Wireless' selected, and a 'Help Explain' link on the right. At the bottom, there are 'Save Settings' and 'Cancel Changes' buttons.

Encryption Methods: Select either **TKIP** or **AES** as the encryption method.

RADIUS Server: Enter the IP Address of your RADIUS server.

RADIUS Port: Enter the port number of your RADIUS server.

Shared Secret: Enter the shared key.

Encryption: Select a level of WEP encryption, **64 bits 10 hex digits** or **128 bits 26 hex digits**. The default is **64 bits 10 hex digits**.

Passphrase: Enter a Passphrase to automatically generate WEP keys. Then click **Generate**.

Key 1-4: If you did not enter a Passphrase, enter the WEP key(s) manually.

Tx Key: Select a key from the drop-down menu.

Wireless Configuration - WiFi-Protected Setup

To use Wi-Fi Protected Setup, click on **WiFi-Protected Setup** radio button in 'Basic Wireless Settings' page.

Asante SmartHub AWRT-550N

Basic Wireless Settings | Wireless Security | Wireless MAC Filter | Advanced Wireless Settings

Basic Wireless Settings

Wireless Configuration: Manual Wi-Fi Protected Setup

Wi-Fi Protected Setup

Please check if your PC has WPS button. If yes, there are 2 options. That you can easily sync up with Smarthub.:

1. If your PC has WPS button. Please click it and press below WPS 
2. If your PC has WPS PIN number, Please enter number here

Wi-Fi Protected Setup Status: Configured

Network Name (SSID): Smarthub-AWRT600N

Security: Disabled

Help Explain

WiFi Protected Setup supports two types of connection: Push Button Configuration (PBC) or Personal Identification Number (PIN).

If you choose to use **PBC** on your client device to connect to the router, click on the WPS software button 

If you choose to use **PIN** on your client device, you need to enter the PIN number generated by the client device into the blank and click **Register**.

Connecting to the Router with WPS Push Button (Optional)

AWRT-550N Wireless N Router supports hardware WiFi-Protected Setup (WPS) push button which allows you to connect your wireless computer with the router safely and easily. Your wireless adapter must support this feature as well. If not, you will need to set up the wireless security manually .

3 Wireless > MAC Filter

You can restrict certain wireless clients from accessing the router by specifying their MAC address and enabling access restriction.

Asante SmartHub AIRT-550N

Basic Wireless Settings | Wireless Security | **Wireless MAC Filter** | Advanced Wireless Settings

Wireless MAC Filter

Enabled Disabled

Prevent PCs listed below from accessing the wireless network:

Permit PCs listed below to access the wireless network:

MAC Address Filter List Wireless Client List

MAC 1:	00:00:00:00:00:00	MAC 26:	00:00:00:00:00:00
MAC 2:	00:00:00:00:00:00	MAC 27:	00:00:00:00:00:00
MAC 3:	00:00:00:00:00:00	MAC 28:	00:00:00:00:00:00
MAC 4:	00:00:00:00:00:00	MAC 29:	00:00:00:00:00:00
MAC 5:	00:00:00:00:00:00	MAC 30:	00:00:00:00:00:00
MAC 6:	00:00:00:00:00:00	MAC 31:	00:00:00:00:00:00
MAC 7:	00:00:00:00:00:00	MAC 32:	00:00:00:00:00:00
MAC 8:	00:00:00:00:00:00	MAC 33:	00:00:00:00:00:00
MAC 9:	00:00:00:00:00:00	MAC 34:	00:00:00:00:00:00
MAC 10:	00:00:00:00:00:00	MAC 35:	00:00:00:00:00:00
MAC 11:	00:00:00:00:00:00	MAC 36:	00:00:00:00:00:00
MAC 12:	00:00:00:00:00:00	MAC 37:	00:00:00:00:00:00
MAC 13:	00:00:00:00:00:00	MAC 38:	00:00:00:00:00:00
MAC 14:	00:00:00:00:00:00	MAC 39:	00:00:00:00:00:00
MAC 15:	00:00:00:00:00:00	MAC 40:	00:00:00:00:00:00
MAC 16:	00:00:00:00:00:00	MAC 41:	00:00:00:00:00:00
MAC 17:	00:00:00:00:00:00	MAC 42:	00:00:00:00:00:00
MAC 18:	00:00:00:00:00:00	MAC 43:	00:00:00:00:00:00
MAC 19:	00:00:00:00:00:00	MAC 44:	00:00:00:00:00:00
MAC 20:	00:00:00:00:00:00	MAC 45:	00:00:00:00:00:00
MAC 21:	00:00:00:00:00:00	MAC 46:	00:00:00:00:00:00
MAC 22:	00:00:00:00:00:00	MAC 47:	00:00:00:00:00:00

Select **Enabled** and choose whether the specified wireless clients will be prevented or permitted to access the wireless network. Enter their MAC address in the fields below and click **Save Settings** to save the settings.

6.2.4 Wireless > Advanced Wireless Settings

You can configure various advanced wireless settings on this screen.

Asante SmartHub AWRT-550N

Basic Wireless Settings | Wireless Security | Wireless MAC Filter | Advanced Wireless Settings

Advanced Wireless

AP Isolation: Enabled Disabled (Default: Disabled)

Frame Burst: Enabled Disabled (Default: Enabled)

Authentication Type: Auto (Default: Auto)

Basic Rate: Default (Default: Default)

Transmission Rate: Auto (Default: Auto)

N Transmission Rate: Auto (Default: Auto)

CTS Protection Mode: Auto (Default: Auto)

Beacon Interval: 100 (Default: 100, Milliseconds, Range: 20~999)

DTIM Interval: 1 (Default: 1, Range: 1 - 255)

Fragmentation Threshold: 2346 (Default: 2346, Range: 256 - 2346)

RTS Threshold: 2347 (Default: 2347, Range: 0 - 2347)

Save Settings Cancel Changes

AP Isolation: This isolates all wireless clients and wireless devices on your network from each other. Wireless devices will be able to communicate with the Router but not with each other. To use this function, select **Enabled**.

Frame Burst: Frame Burst allows packet bursting which will increase overall network speed.

Authentication Type: The default is set to **Auto**, which allows either Open System or Shared Key authentication to be used. With **Open System** authentication, the sender and the recipient do NOT use a WEP key for authentication. With **Shared Key** authentication, the sender and recipient use a WEP key for authentication.

Basic Rate: The Basic Rate setting is not one, but a series of rates at which the Router can transmit. (The Basic Rate is not the actual rate of data transmission. If you want to specify the Router's rate of data transmission, configure the Transmission Rate setting.)

Transmission Rate: The rate of data transmission should be set depending on the speed of your wireless network.

CTS Protection Mode: CTS (Clear-To-Send) Protection Mode should remain disabled unless you are having severe problems with your wireless products not being able to transmit to the Router in an environment with heavy latency wireless traffic. This function boosts the Router's ability to catch all wireless transmissions but will severely decrease performance.

Beacon Interval: A beacon is a packet broadcast by the Router to synchronize the wireless network.

DTIM Interval: This value, between 3 and 255, indicates the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field is a countdown field informing clients of the next window for listening to broadcast and multicast messages. When the Router has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. Its clients hear the beacons and awaken to receive the broadcast and multicast messages. The default value is **1**.

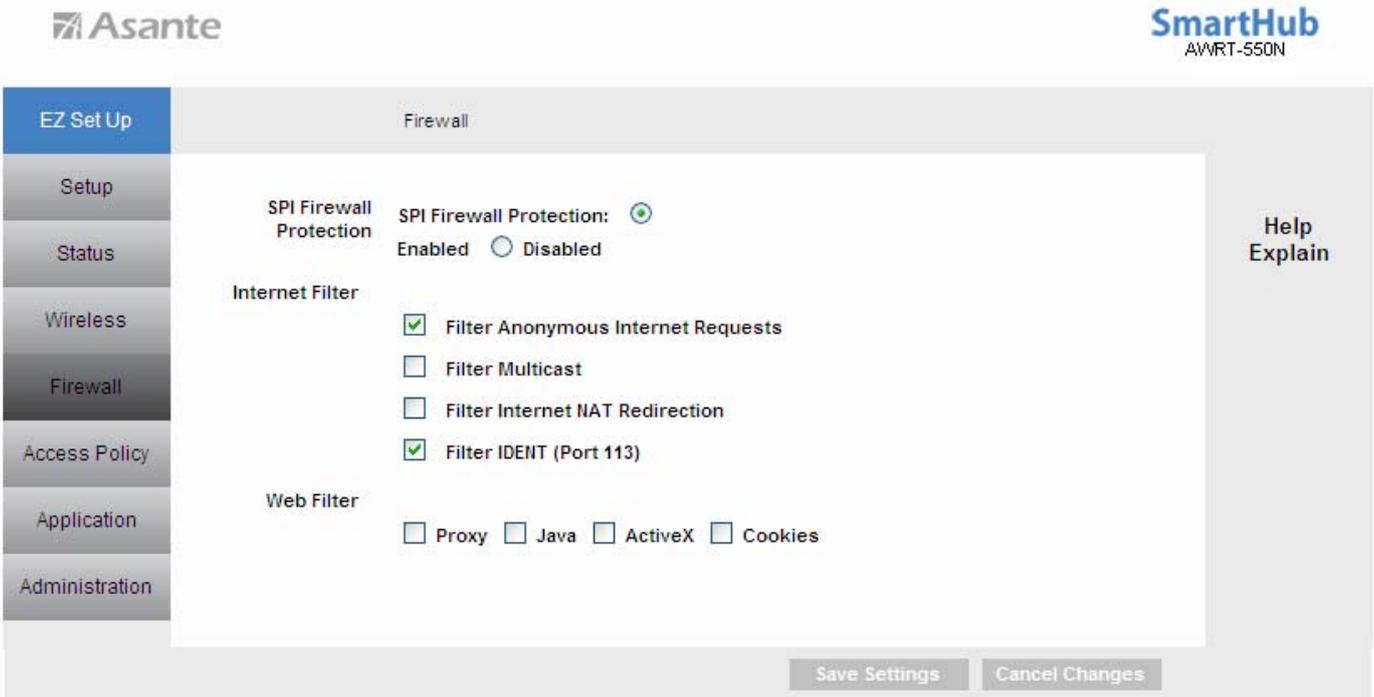
Fragmentation Threshold: This value specifies the maximum size for a packet before data is fragmented into multiple packets. If you experience a high packet error rate, you may slightly increase the Fragmentation Threshold. Setting the Fragmentation Threshold too low may result in poor network performance. Only minor reduction of the default value is recommended. In most cases, it should remain at its default value of **2346**.

RTS Threshold: Should you encounter inconsistent data flow, only minor reduction of the default value, **2347**, is recommended. If a network packet is smaller than the preset 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. The RTS Threshold value should remain at its default value of **2347**.

Click **Save Settings** to save the settings.

6.3 Security

6.3.1 Security > Firewall



SPI Firewall Protection: Select to enable or disable Stateful Packet Inspection. When enabled, access to the router from internet/wan by various protocols like ICMP are denied.

Internet Filter: Place a check to enable various Internet filter including Anonymous Internet Requests, Multicast packets, NAT Redirection, and IDNT port.

Web Filters: You can select to filter Proxy, Java, ActiveX, and/or Cookies.

Click **Save Settings** to save the settings.

6.4 Access Restrictions

6.4.1 Access Restrictions > Internet Access Policy

You can setup policies that deny or allow specific clients to access the internet.

The screenshot displays the 'Internet Access Policy' configuration page in the Asante SmartHub AWRT-550N web interface. The page is organized into several sections:

- Header:** Asante logo on the left and SmartHub AWRT-550N on the right.
- Navigation:** A vertical sidebar on the left contains menu items: EZ Set Up, Setup, Status, Wireless, Firewall, Access Policy (highlighted), Application, and Administration.
- Page Title:** Internet Access Policy
- Internet Access Policy Section:**
 - Access Policy:** A dropdown menu showing '1()', a 'Delete This Entry' button, and a 'Summary' button.
 - Enter Policy Name:** A text input field.
 - Status:** Radio buttons for 'Enabled' and 'Disabled', with 'Disabled' selected.
- Applied PCs:** An 'Edit List' button and the text '(This Policy applies only to PCs on the List.)'
- Access Restriction:** Radio buttons for 'Deny' (selected) and 'Allow'. Below 'Allow' is the text 'Internet access during selected days and hours.'
- Schedule:**
 - Days:** Checkboxes for 'Everyday' (checked), 'Sun', 'Mon', 'Tue', 'Wed', 'Thu', 'Fri', and 'Sat'.
 - Timing Control:** Radio buttons for '24 Hours' (selected) and a time range selector (0:0 to 0:0).
- Website Blocking by URL Address:** Four text input fields labeled 'URL 1:', 'URL 2:', 'URL 3:', and 'URL 4:'.

Access Policy: Select a policy number from the drop down list.

Enter Policy Name: Enter a name for the policy.

Status: Choose to **Enable** or **Disable** the selected policy.

Applied PCs

Click on the **Edit List** button to specify the network clients. Policy only applies to the PCs that are in the list.



List of PCs				
MAC Address	01	<input type="text" value="00:00:00:00:00:00"/>	06	<input type="text" value="00:00:00:00:00:00"/>
	02	<input type="text" value="00:00:00:00:00:00"/>	07	<input type="text" value="00:00:00:00:00:00"/>
	03	<input type="text" value="00:00:00:00:00:00"/>	08	<input type="text" value="00:00:00:00:00:00"/>
	04	<input type="text" value="00:00:00:00:00:00"/>	09	<input type="text" value="00:00:00:00:00:00"/>
	05	<input type="text" value="00:00:00:00:00:00"/>	10	<input type="text" value="00:00:00:00:00:00"/>
IP Address	01	<input type="text" value="192.168.1.0"/>	04	<input type="text" value="192.168.1.0"/>
	02	<input type="text" value="192.168.1.0"/>	05	<input type="text" value="192.168.1.0"/>
	03	<input type="text" value="192.168.1.0"/>	06	<input type="text" value="192.168.1.0"/>
IP Address Range	01	<input type="text" value="192.168.1.0"/> ~ <input type="text" value="0"/>	03	<input type="text" value="192.168.1.0"/> ~ <input type="text" value="0"/>
	02	<input type="text" value="192.168.1.0"/> ~ <input type="text" value="0"/>	04	<input type="text" value="192.168.1.0"/> ~ <input type="text" value="0"/>

You can specify each client by its MAC Address or IP Address. You can also specify a group of clients by entering their IP Address Range. Once you have specified all the clients, click **Save Settings**.

Access Restriction & Schedule

Select to **Deny** or **Allow** the specified clients to access the Internet by **Day** and **Time**.

Schedule Days: Everyday Sun Mon Tue Wed Thu Fri Sat

Timing Control: 24 Hours : to :

Schedule Days: Everyday Sun Mon Tue Wed Thu F

Timing Control: 24 Hours : to :

Website Blocking

You can block the specified clients from accessing certain websites by URL or Keyword. Enter the URL or the Keyword you wish to block.

Website Blocking by URL Address	URL 1:	<input type="text"/>	URL 2:	<input type="text"/>
	URL 3:	<input type="text"/>	URL 4:	<input type="text"/>
	<hr/>			
	Keyword 1:	<input type="text"/>	Keyword 2:	<input type="text"/>
Website Blocking by Keyword	Keyword 3:	<input type="text"/>	Keyword 4:	<input type="text"/>

Click **Save Settings** to save the settings.

To view all the policies, click the **Summary** button.

The screenshot shows the Asante SmartHub interface for configuring an Internet Access Policy. The page has a left sidebar with navigation options: EZ Set Up, Setup, Status, Wireless, Firewall, Access Policy (highlighted), Application, and Administration. The main content area is titled "Internet Access Policy" and includes the following fields and controls:

- Access Policy:** A dropdown menu showing "1()", a "Delete This Entry" button, and a "Summary" button.
- Enter Policy Name:** A text input field.
- Status:** Radio buttons for "Enabled" and "Disabled" (selected).
- Applied PCs:** An "Edit List" button and a note: "(This Policy applies only to PCs on the List.)"
- Access Restriction:** Radio buttons for "Deny" and "Allow" (selected). Below "Allow" is the text: "Internet access during selected days and hours."

On the right side of the main content area, there is a "Help Explain" button.

Blocked Applications

After you selected **Allow** Internet accessing for Access Restriction, you can configure the Internet applications you want to block.

Select application port you want to block and click **>>** button to add it into Blocked List when the specified PCs have Internet access. Click **<<** button to remove applications from the Blocked List.

If you have a custom application, manually enter its name, port range, protocol and click **Add** to add it into the "Applications" List

Access Restriction

Deny
 Allow Internet access during selected days and hours.

Schedule

Days: Everyday Sun Mon Tue Wed Thu Fri Sat

Timing Control: 24 Hours 0:00 to 0:00

Website Blocking by URL Address

URL 1: URL 2: URL 3:
 URL 4:

Website Blocking by Keyword

Keyword 1: Keyword 2:
 Keyword 3: Keyword 4:

Blocked Applications

Note: Only three applications can be blocked per policy.

Applications	Blocked List
DNS (53-53)	<input type="checkbox"/>
HTTP (80-80)	
HTTPS (443-443)	
FTP (21-21)	
POP3 (110-110)	
IMAP (143-143)	<input type="checkbox"/>
SMTP (25-25)	
NNTP (119-119)	
SNMP (161-161)	
Telnet (23-23)	
Game (1000-1200)	
Ping (0-0)	

Application Name:
 Port Range: to
 Protocol:

Click **Save Settings** to save the settings.

6.5 Applications & Gaming

6.5.1 Applications & Gaming > Single Port Forwarding

If you want to host ftp server or online gaming, you must open up ports on the router. This page allows you to setup single port forwarding for the specified applications.

Note: Before using forwarding, you should assign static IP addresses to the designated PCs.

The screenshot shows the 'Single Port Forwarding' configuration page in the Asante SmartHub A400RT-650N web interface. The page has a sidebar on the left with navigation options: EZ Set Up, Setup, Status, Wireless, Firewall, Access Policy, Application, and Administration. The main content area is titled 'Single Port Forwarding' and contains a table with the following columns: External Port, Internal Port, Protocol, To IP address, and Enabled. The table has 12 rows, each representing a port forwarding rule. The first five rows have 'None' selected for the Protocol column, and the last seven rows have 'Both' selected. The 'To IP address' column contains the IP address '192.168.1.0' for all rows. The 'Enabled' column contains checkboxes, all of which are currently unchecked. Below the table are two buttons: 'Save Settings' and 'Cancel Changes'. On the right side of the page, there is a 'Help Explain' link.

External Port	Internal Port	Protocol	To IP address	Enabled
---	---	---	192.168.1.0	<input type="checkbox"/>
---	---	---	192.168.1.0	<input type="checkbox"/>
---	---	---	192.168.1.0	<input type="checkbox"/>
---	---	---	192.168.1.0	<input type="checkbox"/>
---	---	---	192.168.1.0	<input type="checkbox"/>
0	0	Both	192.168.1.0	<input type="checkbox"/>
0	0	Both	192.168.1.0	<input type="checkbox"/>
0	0	Both	192.168.1.0	<input type="checkbox"/>
0	0	Both	192.168.1.0	<input type="checkbox"/>
0	0	Both	192.168.1.0	<input type="checkbox"/>
0	0	Both	192.168.1.0	<input type="checkbox"/>
0	0	Both	192.168.1.0	<input type="checkbox"/>
0	0	Both	192.168.1.0	<input type="checkbox"/>
0	0	Both	192.168.1.0	<input type="checkbox"/>

Application Name: Select or enter an **Application Name**.

External Port/ Internal Port: If you are only forwarding one port, you can put the same port number in both the **External** and **Internal** Port boxes.

Protocol: IP protocol to forward.

To IP Address: This should be the IP address of the computer you want to forward the ports to.

Make sure that you check the **Enabled** box to activate the setting, then click **Save Settings** to save the settings.

6.5.2 Applications & Gaming > Port Range Forwarding

If you want to host ftp server or online gaming, you must open up ports on the router. This page allows you to setup port range forwarding for the specified applications.

Note: Before using forwarding, you should assign static IP addresses to the designated PCs.

Asante SmartHub AWRT-550N

EZ Set Up | Single Port Forwarding | Port Range Forwarding | DMZ | QoS

Port Range Forwarding

Application Name	Start ~ End Port	Protocol	To IP address	Enabled
<input type="text"/>	<input type="text"/> to <input type="text"/>	Both	192.168.1. <input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="text"/> to <input type="text"/>	Both	192.168.1. <input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="text"/> to <input type="text"/>	Both	192.168.1. <input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="text"/> to <input type="text"/>	Both	192.168.1. <input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="text"/> to <input type="text"/>	Both	192.168.1. <input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="text"/> to <input type="text"/>	Both	192.168.1. <input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="text"/> to <input type="text"/>	Both	192.168.1. <input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="text"/> to <input type="text"/>	Both	192.168.1. <input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="text"/> to <input type="text"/>	Both	192.168.1. <input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="text"/> to <input type="text"/>	Both	192.168.1. <input type="text"/>	<input type="checkbox"/>

Save Settings | Cancel Changes

Application Name: Enter an **Application Name**.

Start ~ End Port: If you are only forwarding one port, you can put the same port number in both the **Start** and **End Port** boxes.

Protocol: If you are not sure which protocol to choose, select both.

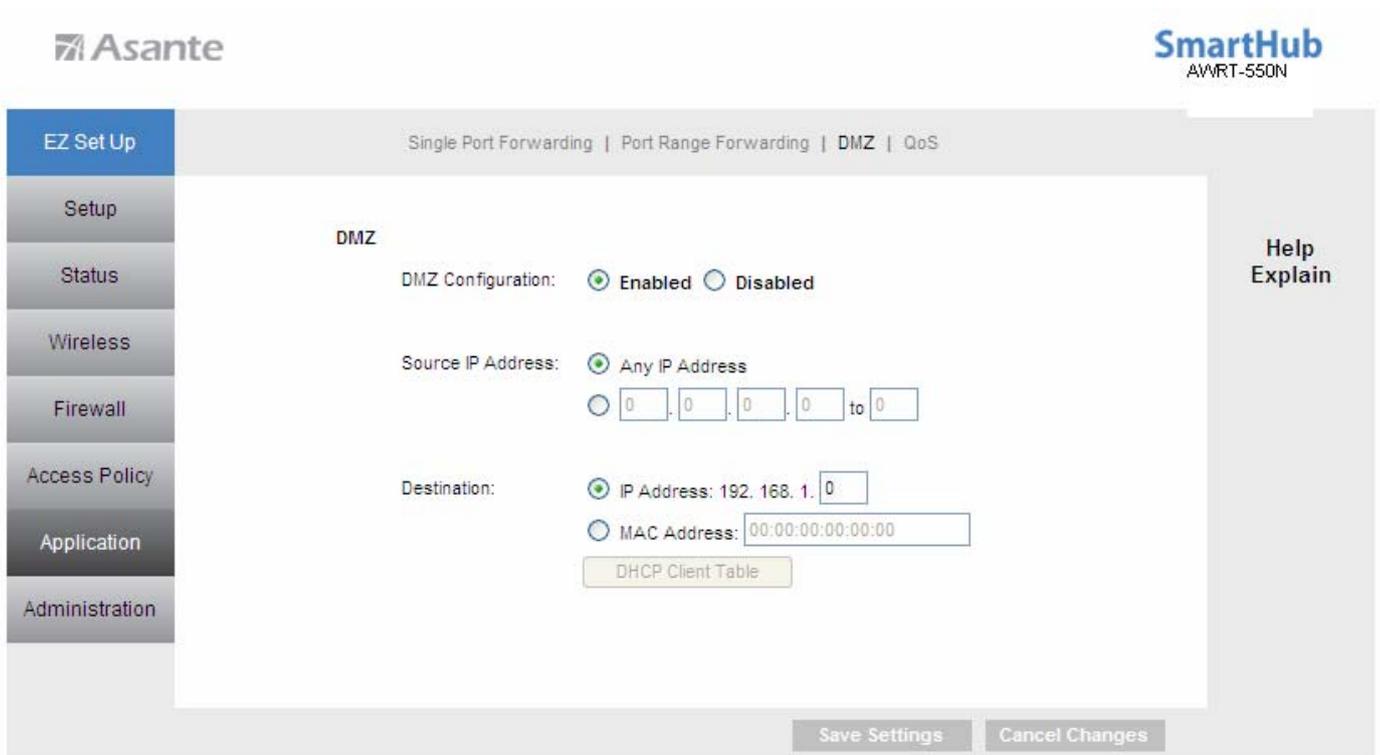
To IP Address: This should be the IP address of the computer you want to forward the ports to.

Make sure that you check the **Enabled** box to activate the setting, then click **Save Settings** to save the settings.

6.5.3 Applications & Gaming > DMZ

DMZ (De-Militarized Zone) is a host without the protection of the router's firewall. It allows a computer to be exposed to unrestricted two-way communication with the Internet. You should only use this feature when the Port Forwarding function fails to make an application work.

Warning: Setting your computer as a DMZ host exposes it to various security vulnerabilities. This feature should be used only when needed.



DMZ: Select to enable or disable DMZ.

Source IP Address: Specify the IP address that can communicate with the DMZ host.

Destination: Specify the IP Address or MAC Address of the DMZ host.

Note: Any DMZ host should have a new static IP address assigned to it because its IP address may change when using the DHCP function.

Click **Save Settings** to save the settings.

6.5.4 Applications & Gaming > QoS

QoS (Quality of Service) manages information as it is transmitted and received. It ensures better service to those applications with a higher priority

The screenshot displays the QoS configuration interface for the Asante SmartHub AWRT-600N. The interface includes a navigation sidebar on the left with options like EZ Set Up, Setup, Status, Wireless, Firewall, Access Policy, Application, and Administration. The main content area is titled 'QoS (Quality of Service)' and contains several sections:

- WMM Support:** A radio button selection where 'Enabled' is selected (indicated by a green dot).
- No Acknowledgement:** A radio button selection where 'Disabled' is selected (indicated by a green dot).
- Internet Access Priority:** A radio button selection where 'Enabled' is selected.
- Category:** A dropdown menu currently set to 'Applications'.
- Applications Table:** A table with two columns: 'Applications' and 'Priority'. The first row shows 'MSN Messenger' with a priority of 'Medium (Recommend)'. There is an 'Add' button below this table.
- Summary Table:** A table with columns for 'Priority', 'Name', and 'Information', currently empty.

At the bottom right of the configuration area, there are two buttons: 'Save Settings' and 'Cancel Changes'. The Asante logo is in the top left, and the SmartHub AWRT-600N logo is in the top right.

Wireless

WMM Support: WMM is a wireless Quality of Service feature that improves quality for audio, video, and voice applications by prioritizing wireless traffic. To use this feature, your wireless client devices in your network must support Wireless WMM.

No Acknowledgement: If you want to disable the Router's Acknowledgement feature, so the Router will not re-send data if an error occurs, select Enabled. Otherwise, keep the default, Disabled.

Internet Access Priority

Enabled/Disabled: To use the QoS policies you set, select Enabled. Otherwise, select Disabled.

Category

There are five categories available. Select one of the following: Applications, Online Games, MAC Address, Ethernet Port, or Voice Device.

Applications

The screenshot shows the Asante SmartHub AWR-550N web interface. The left sidebar contains navigation tabs: EZ Set Up, Setup, Status, Wireless, Firewall, Access Policy, Application, and Administration. The main content area is titled "QoS (Quality of Service)" and includes the following settings:

- WMM Support: Enabled Disabled (Default: Enabled)
- Wireless No Acknowledgement: Enabled Disabled (Default: Disabled)
- Internet Access Priority: Enabled Disabled
- Category: Applications (dropdown menu)
- Applications: MSN Messenger (dropdown menu)
- Priority: Medium (Recommend) (dropdown menu)
- Add button

Below the settings is a Summary table:

Priority	Name	Information		
----------	------	-------------	--	--

At the bottom right of the interface are "Save Settings" and "Cancel Changes" buttons.

Applications: Select the appropriate application. If you select *Add a New Application*, follow the instructions in the "Add a New Application" section.

Priority: Select the appropriate priority: **High**, **Medium**, **Normal**, or **Low**. Click **Add** to save your changes. Your new entry will appear in the Summary list.

Add a New Application

Asante SmartHub AWRT-550N

EZ Set Up | Single Port Forwarding | Port Range Forwarding | DMZ | QoS

Setup | Status | Wireless | Firewall | Access Policy | Application | Administration

QoS (Quality of Service)

WMM Support: Enabled Disabled (Default: Enabled)

Wireless No Acknowledgement: Enabled Disabled (Default: Disabled)

Internet Access Priority Enabled Disabled

Category: Applications

Applications	Priority
MSN Messenger	Medium (Recommend)

Add

Summary

Priority	Name	Information		
----------	------	-------------	--	--

Save Settings Cancel Changes

Enter a Name: Enter a name for this application.

Port Range: Enter the port range that the application will be using. For example, if you want to allocate bandwidth for FTP, you can enter 21-21. Select the protocol **TCP** or **UDP**, or select **Both**.

Priority: Select the appropriate priority: **High**, **Medium**, **Normal**, or **Low**. Click **Add** to save your changes.

Online Games

The screenshot shows the Asante SmartHub AWRT-550N web interface. The top navigation bar includes the Asante logo and the SmartHub AWRT-550N model name. The main content area is titled "QoS (Quality of Service)" and is divided into several sections:

- WMM Support:** Enabled Disabled (Default: Enabled)
- Wireless No Acknowledgement:** Enabled Disabled (Default: Disabled)
- Internet Access Priority:** Enabled Disabled
- Category:** Online Games (dropdown menu)
- Games:** Counter Strike (dropdown menu)
- Priority:** Medium (Recommend) (dropdown menu)
- Add:** Button to add the selected game and priority.

Below the configuration area is a **Summary** table with the following structure:

Priority	Name	Information		

At the bottom right of the interface are two buttons: "Save Settings" and "Cancel Changes".

Games: Select the appropriate game.

Priority: Select the appropriate priority: **High**, **Medium**, **Normal**, or **Low**. Click **Add** to save your changes.

MAC Address

The screenshot shows the Asante SmartHub AWR-550N web interface. The top navigation bar includes the Asante logo and the SmartHub AWR-550N model name. A secondary navigation bar contains links for Single Port Forwarding, Port Range Forwarding, DMZ, and QoS. A left sidebar menu lists various configuration sections: EZ Set Up, Setup, Status, Wireless, Firewall, Access Policy, Application, and Administration. The main content area is titled 'QoS (Quality of Service) Wireless' and contains the following settings:

- WMM Support: Enabled Disabled (Default: Enabled)
- No Acknowledgement: Enabled Disabled (Default: Disabled)

Internet Access Priority: Enabled Disabled

Category: Online Games

Games	Counter Strike
Priority	Medium (Recommend)

Summary

Priority	Name	Information		

Enter a Name Enter a name for your network device.

MAC Address Enter the MAC address of your network device.

Priority Select the appropriate priority: **High**, **Medium**, **Normal**, or **Low**. Click **Add** to save your changes.

Ethernet Port

Asante SmartHub AWR-550N

EZ Set Up | Single Port Forwarding | Port Range Forwarding | DMZ | QoS

Setup | Status | Wireless | Firewall | Access Policy | Application | Administration

QoS (Quality of Service)

Wireless

WMM Support: Enabled Disabled (Default: Enabled)

No Acknowledgement: Enabled Disabled (Default: Disabled)

Internet Access Priority Enabled Disabled

Category: Ethernet Port

Priority	Name	Information
	Ethernet Port 1	
	Ethernet Port 2	
	Ethernet Port 3	
	Ethernet Port 4	

Summary

Priority	Name	Information		

Save Settings | Cancel Changes

Ethernet: Select the Ethernet port that you want to configure.

Priority: Select the appropriate priority: **High**, **Medium**, **Normal**, or **Low**. Click **Add** to save your changes.

Voice Device

The screenshot shows the Asante SmartHub AWRT-550N configuration interface. The left sidebar contains navigation tabs: EZ Set Up, Setup, Status, Wireless, Firewall, Access Policy, Application, and Administration. The main content area is titled 'Voice Device' and includes the following settings:

- QoS (Quality of Service) Wireless:**
 - WMM Support: Enabled Disabled (Default: Enabled)
 - No Acknowledgement: Enabled Disabled (Default: Disabled)
- Internet Access Priority:** Enabled Disabled
- Category:** Voice Device (dropdown menu)
- My Current PC's MAC Address:** 00:23:8B:F9:AC:7F
- Form fields:**
 - Enter a Name: [Text Input]
 - MAC Address: 00:00:00:00:00:00
 - Priority: High (Recommend) (dropdown menu)
 - [Add] button
- Summary:** A table with columns: Priority, Name, Information, and two empty columns.

At the bottom right, there are buttons for 'Save Settings' and 'Cancel Changes'. A 'Help Explain' link is located on the right side of the page.

Enter a Name: Enter a name for your voice device such as VoIP or IP Phone.

MAC Address: Enter the MAC address of your voice device.

Priority: Select the appropriate priority: **High**, **Medium**, **Normal**, or **Low**. Click **Add** to save your changes.

Click **Save Settings** to save the settings.

Summary

Summary shows the configuration for various application priorities. You can Remove or Edit the configuration from this list.

6.6 Administration

6.6.1 Administration > Management

The Management screen allows you to change the router's log in password as well as other administrative settings.

The screenshot shows the Asante SmartHub Management interface. The top navigation bar includes 'Management', 'Log', 'Diagnostics', 'Factory Defaults', and 'Firmware Upgrade'. The left sidebar contains menu items: 'EZ Set Up', 'Setup', 'Status', 'Wireless', 'Firewall', 'Access Policy', 'Application', and 'Administration'. The main content area is titled 'Management' and contains several sections:

- EZ Setup:** EZ Setup: Enabled Disabled
- Web Access:** Web Utility Access: HTTP HTTPs; Web Utility Access via Wireless: Enabled Disabled
- Remote Access:** Remote Management: Enabled Disabled; Web Utility Access: HTTP HTTPs; Remote Upgrade: Enabled Disabled; Allow Remote IP Address: Any IP Address, [0][][0][][0][][0][][0][][0] to [0][][0][][0][][0][][0][][0]; Remote Management Port: [9000]
- UPnP:** UPnP: Enabled Disabled; Allow Users to Configure: Enabled Disabled; Allow Users to Disable Internet Access: Enabled Disabled

At the bottom, there are buttons for 'Backup Configurations', 'Restore Configurations', 'Save Settings', and 'Cancel Changes'.

EZ Setup: Select to enable or disable **EZ Setup**. If **EZ Setup** is disabled, the user is allowed to access internet whenever he/she is connected to the router. If enabled, the user is required to enter username/password to access the internet.

Web Access: Select to enable or disable HTTPs and Wireless access for the Web Configuration Utility.

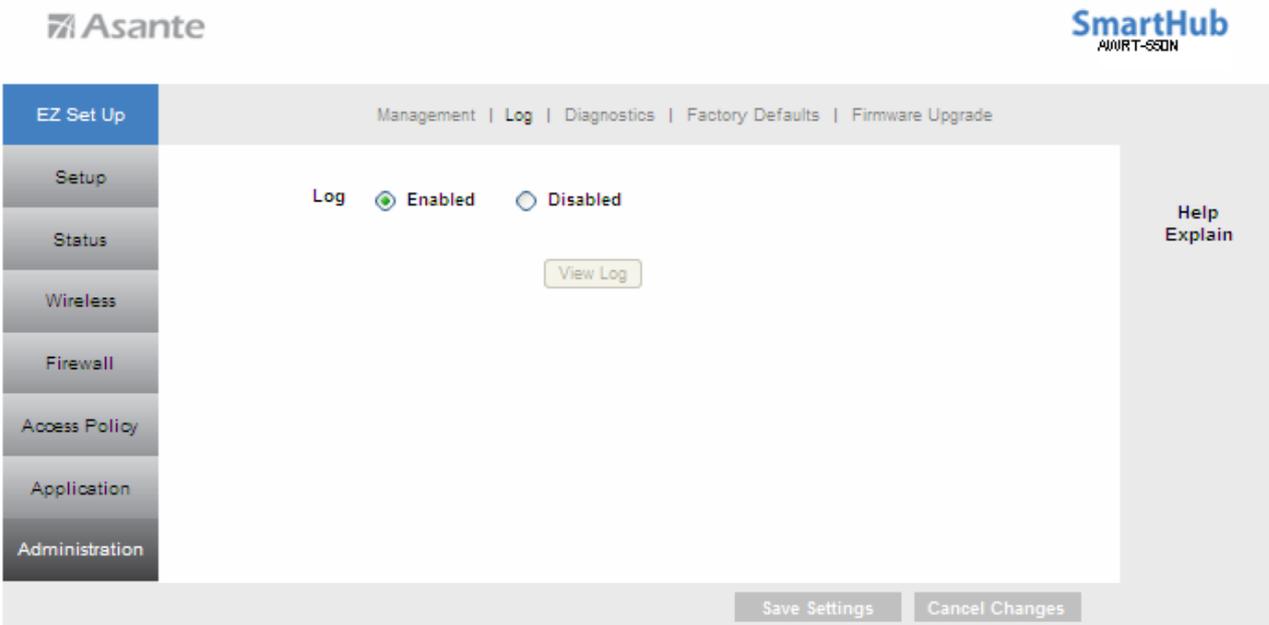
Remote Access: Select to enable or disable remote management/upgrade of the router. You can allow remote management from any IP Address or a specified IP Address as well as the port number.

Backup and Restore Configurations: You can choose to backup the router's settings so that you don't have to manually configure the settings again if you reset the router to factory default.

UPnP: Universal Plug and Play (UPnP) allows Windows Me and XP to automatically configure the router for various Internet applications, such as gaming and videoconferencing.

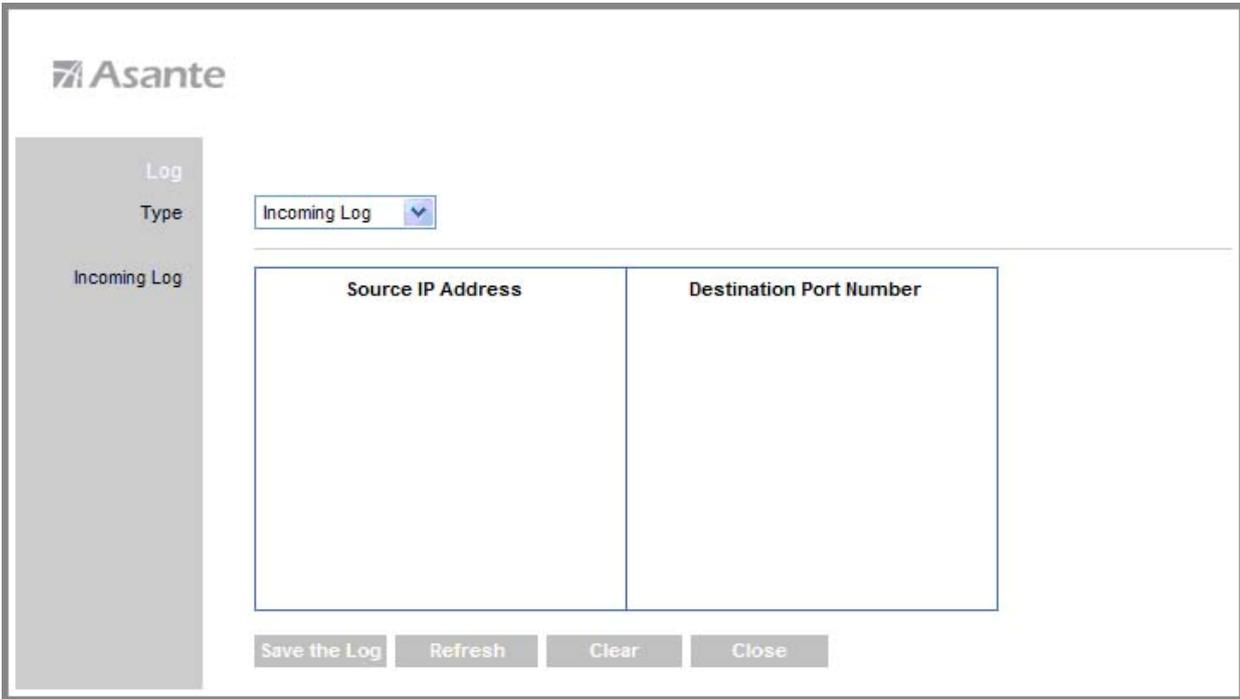
6.6.2 Administration > Log

You can choose to **Enable** or **Disable** logging of your network activity on this screen.



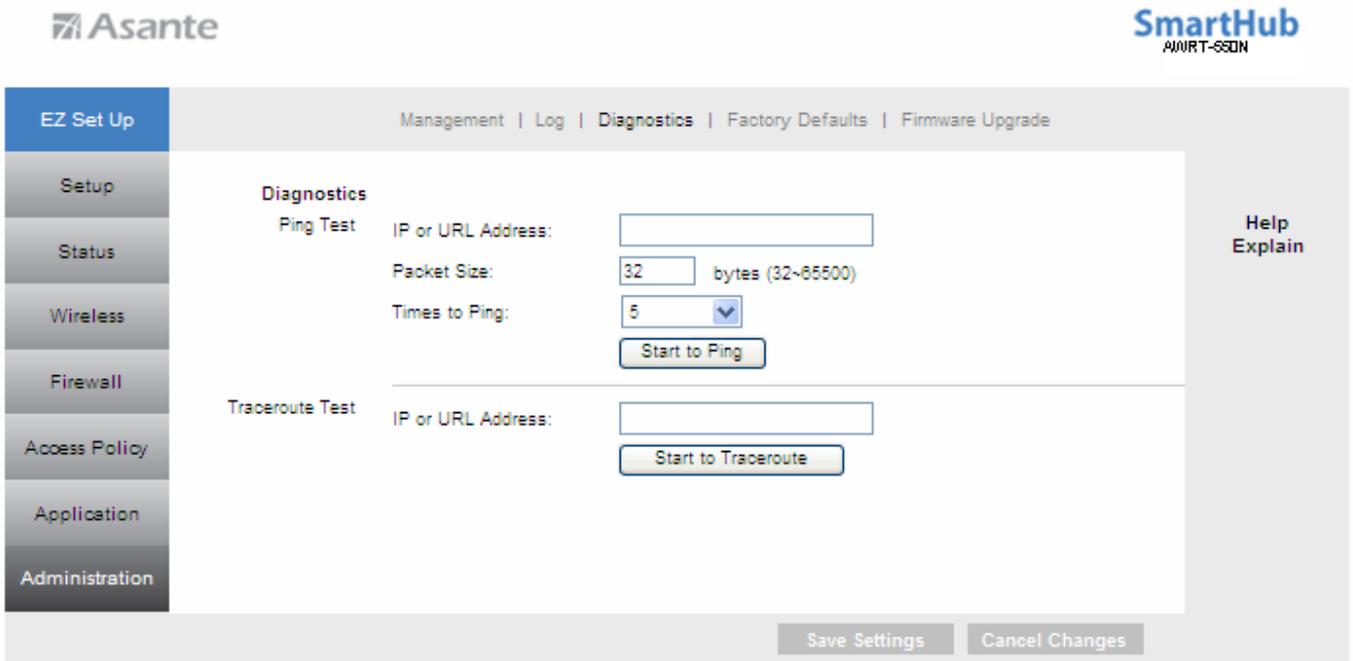
The screenshot shows the Asante SmartHub administration interface. At the top left is the Asante logo, and at the top right is the SmartHub logo with the model number A100RT-880N. Below the logos is a navigation bar with links for Management, Log, Diagnostics, Factory Defaults, and Firmware Upgrade. The main content area is titled 'Log' and features two radio buttons: 'Enabled' (selected) and 'Disabled'. Below these buttons is a 'View Log' button. On the right side of the interface, there are 'Help' and 'Explain' links. At the bottom of the interface, there are 'Save Settings' and 'Cancel Changes' buttons. A vertical sidebar on the left contains navigation links for EZ Set Up, Setup, Status, Wireless, Firewall, Access Policy, Application, and Administration.

Click **View Log** to view the detailed log.



6.6.3 Administration > Diagnostics

The Diagnostics screen allows you to perform Ping and Traceroute tests.

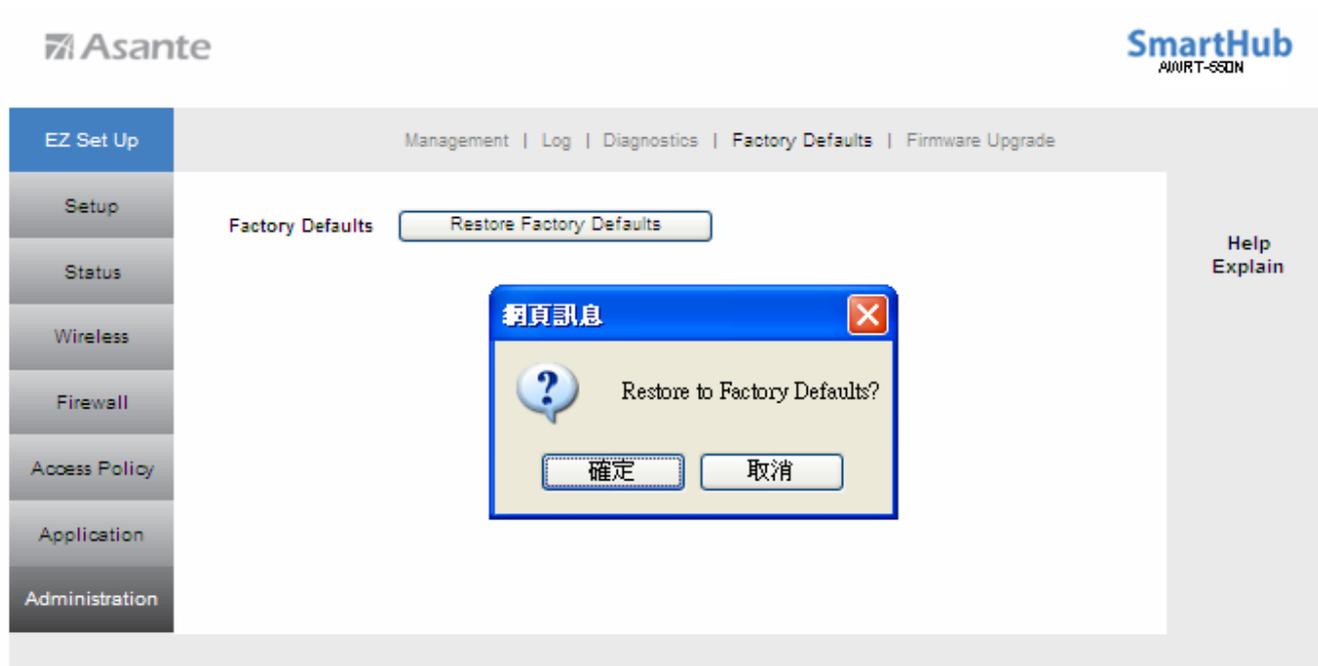


Ping Test: Enter the IP or URL Address you wish to ping and click **Start to Ping**.

Traceroute: Enter the IP or URL Address you wish to trace and click **Start to Traceroute**.

6.6.4 Administration > Factory Defaults

The Factory Defaults screen allows you to set all the router's settings to the factory default.



Click on the **Restore Factory Defaults** button to restore all the settings to default and click **OK** to continue.

6.6.5 Administration > Firmware Upgrade

The Firmware Upgrade screen allows you to upgrade the router's firmware.

The screenshot shows the Asante SmartHub AWRT-550N web interface. The top left features the Asante logo, and the top right shows the SmartHub AWRT-550N logo. A navigation bar at the top contains links for Management, Log, Diagnostics, Factory Defaults, and Firmware Upgrade. On the left, a sidebar menu lists various settings: EZ Set Up, Setup, Status, Wireless, Firewall, Access Policy, Application, and Administration. On the right, there is a 'Help Explain' link. The main content area is titled 'Firmware Upgrade' and includes a 'Check For New Firmware Version' button, a file selection field with a '浏览...' (Browse) button, and a 'Start to Upgrade' button. A red warning message states: 'Warning: Upgrading firmware may take a few minutes, please don't turn off the power or press the reset button.' Below the warning is a progress bar showing 0% completion. At the bottom, a pink message reads: 'Upgrade must NOT be interrupted !!'

You must download and unzip the new firmware first from www.asante.com

Click on **Browse** to browse to the new firmware, and click **Start to Upgrade**.

6.7 Status

6.7.1 Status > Router

The Router screen displays various status of the router including the firmware version.

The screenshot shows the Asante SmartHub interface for the AVWRT-550N router. The page is titled "Router" and includes a navigation menu on the left with options: EZ Set Up, Setup, Status, Wireless, Firewall, Access Policy, Application, and Administration. The "Status" option is selected. The main content area is divided into two sections: "Router Information" and "Internet Connection".

Router Information:

Firmware Version:	1.0.01
S/N:	1234567890
Current Time:	Thu Nov 19 03:21:03 2009 (GMT -08:00)
Internet MAC Address:	00:21:00:78:4C:9D
Host Name:	Asante
Domain Name:	Asante

Internet Connection:

Connection Type:	Automatic Configuration - DHCP
Internet IP Address	0.0.0.0
Subnet Mask	0.0.0.0
Default Gateway	0.0.0.0
DNS	0.0.0.0
MTU	Auto

At the bottom of the Internet Connection section, there are two buttons: "IP Address Release" and "IP Address Renew". A "Refresh" button is located at the bottom right of the main content area. On the right side of the page, there is a "Help Explain" link.

Click on the **Refresh** button to reload the screen.

6.7.2 Status > Local Network

Asante SmartHub AWRT-550N

Router | Local Network | Wireless Network

Local Network

Local MAC Address: 00:21:00:78:4C:9C
 Router IP Address: 192.168.1.1
 Subnet Mask: 255.255.255.0

DHCP Server

DHCP Server: Enabled
 Start IP Address: 192.168.1.100
 End IP Address: 192.168.1.149

DHCP Client Table

Refresh

Help Explain

Click on the **DHCP Client Table** to display a list of all the DHCP clients in your network.

Asante

DHCP Client Table

Sort by: IP Address

Client Name	Interface	IP Address	MAC Address	Expired Time	
Katie_Tung-NB01	LAN	192.168.1.100	00:23:8B:F9:AC:7F	22hr:1min:59sec	Delete

Refresh Close

6.7.3 Status > Wireless Network

The Wireless Network screen displays various status about your wireless network.

Asante **SmartHub**
AWRT-550N

EZ Set Up Router | Local Network | **Wireless Network**

Wireless Network

MAC Address:	00:21:00:78:4C:9C
Mode:	BGN-Mixed
Network Name (SSID):	Smarthub-AVRT600N
Radio Band:	Auto - 20/40MHz Channel
Standard Channel:	Auto
Extension Channel:	Auto
Firewall:	Disabled
SSID Broadcast:	Enabled

[Refresh](#)

Help Explain

7. Specifications

Standards

- IEEE 802.11n draft 2.0
- IEEE 802.11 b / g

Frequency

- 2.4 GHz

Ports

- 1 x 10/100Mbps WAN port
- 4 x 10/100Mbps LAN port

Antenna type

- 2 Internal 1 dBi antennas

Security

- WPA2, WPA, WEP 64/128-bit
- Wireless MAC Filter
- AP Isolation

LEDs

- Power, Internet, Wireless, LAN1~4, WPS

Advanced Features

- Quality of Service (QoS)
- Stateful Packet Inspection (SPI) / DoS
- VPN Pass-through
- UPnP

WiFi Protected Setup

- PIN (Personal Identification Number)
- PBC (Push button configuration)

System Requirement

- Windows®, Mac®, or Linux® operating system
- Installed Ethernet adapter
- Recommended use with AWLL7025

Power

- Input: 100~240V AC, 50~60Hz
- Output: 12V / 1A

Dimensions

- 179 x 132 x 28 mm

Temperature

- Operating: 0°C to 40°C

Humidity

- 10% to 95% Non-Condensing

Warranty

- Limited 1-year warranty

Certification

- FCC, IC

App Appendix – Information

Federal Communication Commission Interference 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 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.

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

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.

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 availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

Industry Canada statement:

This device complies with RSS-210 of the Industry Canada 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.

IMPORTANT NOTE:**Radiation Exposure Statement:**

This equipment complies with Canada 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.

Technical Support

E-mail: support@asante.com

Toll Free: 1-877-262-0324

Web Site: www.asante.com

*Theoretical maximum wireless signal rate derived from IEEE standard 802.11g and draft 802.11n specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, mix of wireless products used, radio frequency interference (e.g., cordless telephones and microwaves) as well as network overhead lower actual data throughput rate. This product is based on IEEE draft 802.11n specification and is not guaranteed to be compatible with future versions of IEEE 802.11n specification. Compatibility with draft 802.11n devices from other manufactures is not guaranteed. Specifications are subject to change without notice. Photo of product may not reflect actual content. All products and trademarks are the property of their respective owners. Copyright ©2009 AWRT-300N®