

DAP-2553

Version 3.0

AirPremier N

Dual Band PoE Access Point

User Manual

Business Class Networking

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Package Contents

- D-Link DAP-2553 AirPremier N Dual Band PoE Access Point
- Power Adapter
- CAT5 Ethernet Cable
- CD-ROM with User Manual
- Install Guide

Note: Using a power supply with a different voltage rating than the one included with the DAP-2553 will cause damage and void the warranty for this product.



System Requirements

- Computers with Windows®, Macintosh®, or Linux-based operating systems with an installed Ethernet Adapter
- For configuration, the following web browsers are supported:
 - Internet Explorer Version 11.0, Chrome 33, Safari 7, or Firefox 28 and above

Introduction

The DAP-2553 802.11n selectable AP increases productivity by allowing you to work faster and more efficiently. With the DAP-2553, bandwidth-intensive applications like graphics or multimedia will benefit significantly because large files are now able to move across the network quickly.

The DAP-2553 is capable of operating in one of four different wireless networking modes: access point, WDS (Wireless Distribution System) with AP, WDS, or Wireless Client mode.

Use less wiring, enjoy increased flexibility, save time and money with PoE (Power over Ethernet). With PoE, the DAP-2553 shares power and data over the CAT5 cable, making the setup of your network less expensive and more convenient.

An ideal solution for quickly creating and extending a wireless local area network (WLAN) in offices or other workplaces, trade shows, and special events, the DAP-2553 provides data transfer rates up to 450Mbps. (The 802.11n standard is backwards compatible with 802.11a, 802.11g, and 802.11b devices.)

WPA/WPA2 is offered in two options: Enterprise (used for corporations) and Personal (used for home users).

WPA-Personal and WPA2-Personal are directed towards home users who do not have the server-based equipment required for user authentication. This method of authentication is similar to WEP because you define a "Pre-Shared Key" on the wireless router/AP. Once the pre-shared key is confirmed and satisfied at both the client and access point, access is then granted. The encryption method used is referred to as the Temporal Key Integrity Protocol (TKIP), which offers per-packet dynamic hashing. It also includes an integrity checking feature which ensures that the packets were not tampered with during wireless transmission.

WPA-Enterprise and WPA2-Enterprise are ideal for businesses that already have existing security infrastructures established.

Management and security implementation can now be centralized on a server participating on the network. Utilizing 802.1X with a RADIUS (Remote Authentication Dial-in User Service) server, a network administrator can define a list of authorized users who can access the wireless LAN. When attempting to access a wireless LAN with WPA-Enterprise configured, the new client will be requested to enter a username with a password. If the new client is authorized by the administration, and enters the correct username and password, then access is granted. In the case where an employee leaves the company, the network administrator is able to remove the previous employee from the authorized list to avoid compromising the network.

EAP (Extensible Authentication Protocol) is available through the Windows® XP operating system. You will need to use the same type of EAP protocol on all devices in your network when using the 802.1X feature.

*Maximum wireless signal rate derived from IEEE Standard 802.11 specifications. Actual data throughput may vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead can lower actual data throughput rate.

Features

- **Four different operation modes** - Capable of operating in one of four different operation modes to meet your wireless networking needs: Access Point, WDS with AP, WDS, or Wireless Client.
- Faster wireless networking with the 802.11n standard to provide a maximum wireless signal rate of up to 450 Mbps*.
- Compatible with the 802.11b standard to provide a wireless data rate of up to 11Mbps, allowing you to migrate your system to the 802.11n and 802.11g standards on your own schedule without sacrificing connectivity.
- Compatible with the 802.11g standard to provide a wireless data rate of up to 54Mbps in the 2.4GHz frequency range.
- Compatible with the 802.11a standard to provide a wireless data rate of up to 54Mbps in the 5GHz frequency range.
- Better security with WPA - The DAP-2553 can securely connect wireless clients on the network using WPA (Wi-Fi Protected Access) to provide a much higher level of security for your data and communications than its previous versions.
- **Central WiFiManager software** - The real-time display of the network's topology and AP's information makes network configuration and management quick and simple.
- **SNMP for management** - The DAP-2553 is not just fast, but also supports SNMP v.3 for better network management. Superior wireless AP manager software is bundled with the DAP-2553 for network configuration and firmware upgrade. Systems administrators can also set up the DAP-2553 easily with the Web-based configuration.
- Utilizes OFDM technology (Orthogonal Frequency Division Multiplexing).
- Supports 802.3af Power over Ethernet.
- Supports one 10/100/1000M Ethernet port.
- Operates in the 2.4~2.5GHz and 5.15~5.85GHz** frequency ranges.
- Web-based interface for managing and configuring.

*Maximum wireless signal rate derived from IEEE Standard 802.11 specifications. Actual data throughput may vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead can lower actual data throughput rate.

**Please note that operating frequency ranges vary depending on the regulations of individual countries and jurisdictions. The DAP-2553 is not supported in the 5.25~5.35 GHz and 5.47 ~ 5.725 GHz frequency ranges in some regions.

Wireless Basics

D-Link wireless products are based on industry standards to provide high-speed wireless connectivity that is easy to use within your home, business or public access wireless networks. D-Link wireless products provides you with access to the data you want, whenever and wherever you want it. Enjoy the freedom that wireless networking can bring to you.

WLAN use is not only increasing in both home and office environments, but in public areas as well, such as airports, coffee shops and universities. Innovative ways to utilize WLAN technology are allowing people to work and communicate more efficiently. Increased mobility and the absence of cabling and other types of fixed infrastructure have proven to be beneficial to many users.

Wireless adapter cards used on laptop and desktop systems support the same protocols as Ethernet adapter cards, allowing wireless users to use the same applications as those used on a wired network.

People use WLAN technology for many different purposes:

Mobility - productivity increases when people can have access to data in any location within the operating range of their WLAN. Management decisions based on real-time information can significantly improve the efficiency of a worker.

Low implementation costs - WLANs are easy to set up, manage, change and relocate. Networks that frequently change can benefit from WLAN's ease of implementation. WLANs can operate in locations where installation of wiring may be impractical.

Installation and network expansion - by avoiding the complications of troublesome cables, a WLAN system can be fast and easy during installation, especially since it can eliminate the need to pull cable through walls and ceilings. Wireless technology provides more versatility by extending the network beyond the home or office.

Inexpensive solution - wireless network devices are as competitively priced as conventional Ethernet network devices. The DAP-2553 saves money by providing users with multi-functionality configurable in four different modes.

Scalability - Configurations can be easily changed and range from Peer-to-Peer networks, suitable for a small number of users to larger Infrastructure networks to accommodate hundreds or thousands of users, depending on the number of wireless devices deployed.

Standards-Based Technology

The DAP-2553 Wireless Access Point utilizes the 802.11a, 802.11b, 802.11g, and 802.11n standards.

The IEEE 802.11n standard is an extension of the 802.11a, 802.11b, and 802.11g standards that came before it. It increases the maximum wireless signal rate up to 450Mbps* within both the 2.4GHz and the 5GHz bands, utilizing OFDM technology.

This means that in most environments - within the specified range of this device - you will be able to transfer large files quickly, or even watch a movie in MPEG format over your network without noticeable delays. This technology works by transmitting high-speed digital data over a radio wave utilizing OFDM (Orthogonal Frequency Division Multiplexing) technology. OFDM works by splitting the radio signal into multiple smaller sub-signals that are then simultaneously transmitted at different frequencies to the receiver. OFDM reduces the amount of crosstalk (interference) in signal transmissions.

The D-Link DAP-2553 will automatically sense the best possible connection speed to ensure the greatest possible speed and range.

IEEE 802.11n offers the most advanced network security features available today, including WPA.

*Maximum wireless signal rate derived from IEEE Standard 802.11 specifications. Actual data throughput may vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead can lower actual data throughout rate.

Wireless Installation Considerations

The D-Link AirPremier N wireless access point lets you access your network using a wireless connection from virtually anywhere within the operating range of your wireless network. Keep in mind, however, that the number, thickness and location of walls, ceilings, or other objects that the wireless signals must pass through, may limit the range. Typical ranges vary depending on the types of materials and background RF (radio frequency) noise in your home or business. The key to maximizing wireless range is to follow these basic guidelines:

- 1.** Keep the number of walls and ceilings between the access point and other network devices to a minimum. Each wall or ceiling can reduce your adapter's range from 3-90 feet (1-30 meters). Position your devices so that the number of walls or ceilings is minimized.
- 2.** Be aware of the direct line between network devices. A wall that is 1.5 feet thick (.5 meters), at a 45-degree angle appears to be almost 3 feet (1 meter) thick. At a 2-degree angle, it looks over 42 feet (14 meters) thick! Position devices so that the signal will travel straight through a wall or ceiling (instead of at an angle) for better reception.
- 3.** Building Materials make a difference. A solid metal door or aluminum studs may have a negative effect on the range. Try to position access points, wireless routers, and computers so that the signal passes through drywall or open doorways. Materials and objects such as glass, steel, metal, walls with insulation, water (fish tanks), mirrors, file cabinets, brick, and concrete will degrade your wireless signal.
- 4.** Keep your product away (at least 3-6 feet or 1-2 meters) from electrical devices or appliances that generate RF noise.
- 5.** If you are using 2.4GHz cordless phones or X-10 (wireless products such as ceiling fans, lights, and home security systems), your wireless connection may degrade dramatically or drop completely. Make sure your 2.4GHz phone base is as far away from your wireless devices as possible. The base transmits a signal even if the phone is not in use.

Hardware Overview



Power Receptacle

The supplied power adapter connects here.

Reset Button

A pinhole button located beside the Ethernet socket is used to reset the system or restore the factory default settings.

Note: After resetting the unit, you will still be able to access the data on your hard drives.

LAN (PoE) Port

An Ethernet port that connects the unit to a network. This port can also be used to supply power to this unit using Power over Ethernet.



Power LED

This light will be solid green when the unit is powered on.

5GHz LED

This light will be flickering green when the 5GHz frequency is in use.

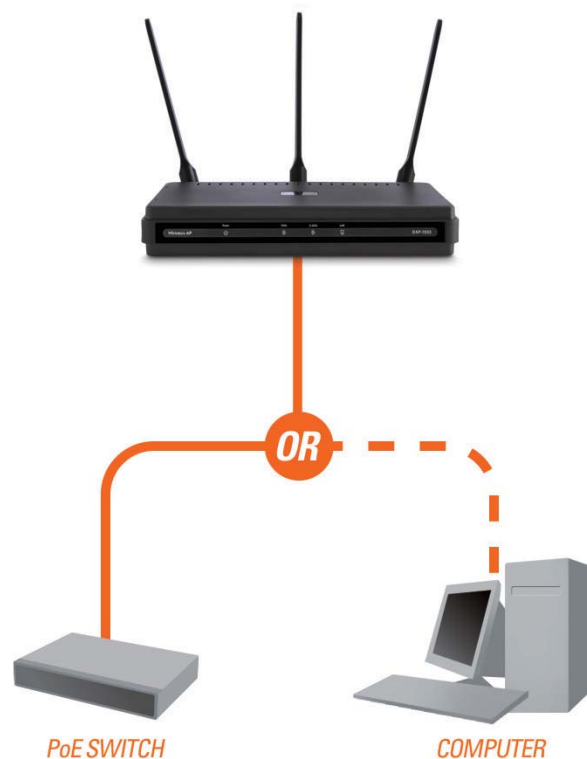
2.4GHz LED

This light will be flickering green when the 2.4GHz frequency is in use.

LAN LED

This light will be flickering green when there is active LAN traffic.

Connect Power over Ethernet (PoE)

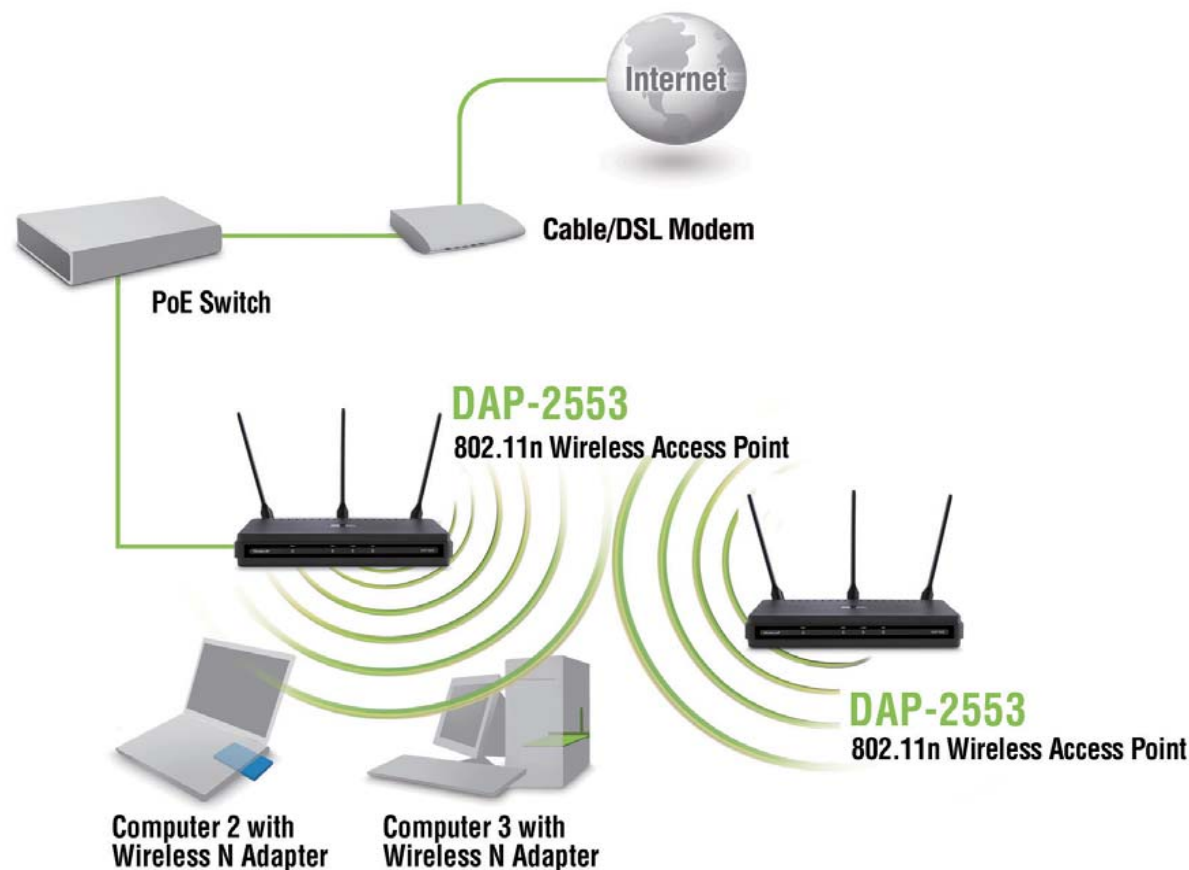


Connect one end of an Ethernet cable (included with your access point) to the LAN port on the DAP-2553 and the other end of the Ethernet cable to either your computer or to your PoE switch. The AP can be powered on by a PoE switch or by the power adapter shipped with the AP.

Four Operational Modes

Operation Mode (Only supports 1 mode at a time)	Function
Access Point (AP)	Create a wireless LAN
WDS with AP	Wirelessly connect multiple networks while still functioning as a wireless AP
WDS	Wirelessly connect multiple networks
Wireless Client	AP acts as a wireless network adapter for your Ethernet-enabled device

Getting Started



1. You will need broadband Internet access.
2. Consult with your cable or DSL provider for proper installation of the modem.
3. Connect the cable or DSL modem to a router. See the printed Install Guide included with your router.
4. If you are connecting a desktop computer to your network, install a wireless PCI adapter into an available PCI slot on your desktop computer.
5. Install the drivers for your wireless CardBus adapter into a laptop computer.

Configuration

To configure the DAP-2553, use a computer that is connected to the DAP-2553 with an Ethernet cable (see the *Network Layout diagram*).

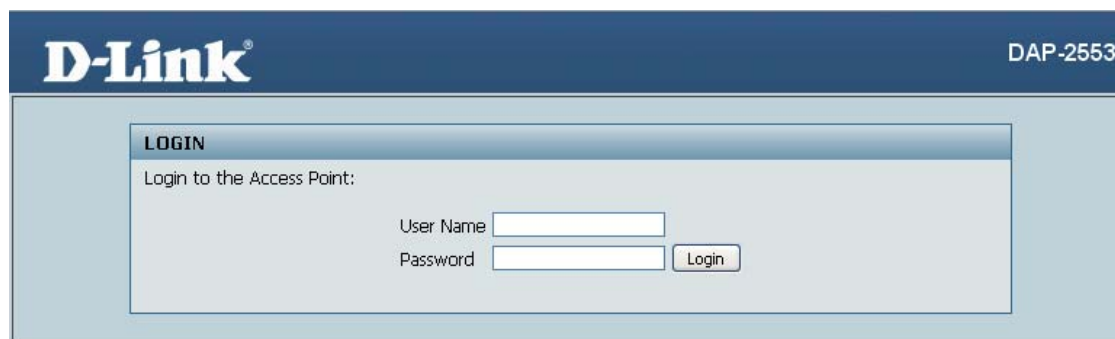
First, disable the **Access the Internet using a proxy server** function. To disable this function, go to **Control Panel > Internet Options > Connections > LAN Settings** and uncheck the enable box.

Launch your web browser.

Type the IP address and http port of the DAP-2553 in the address field (**http://192.168.0.50**) and press **Enter**. Make sure that the IP addresses of the DAP-2553 and your computer are in the same subnet.

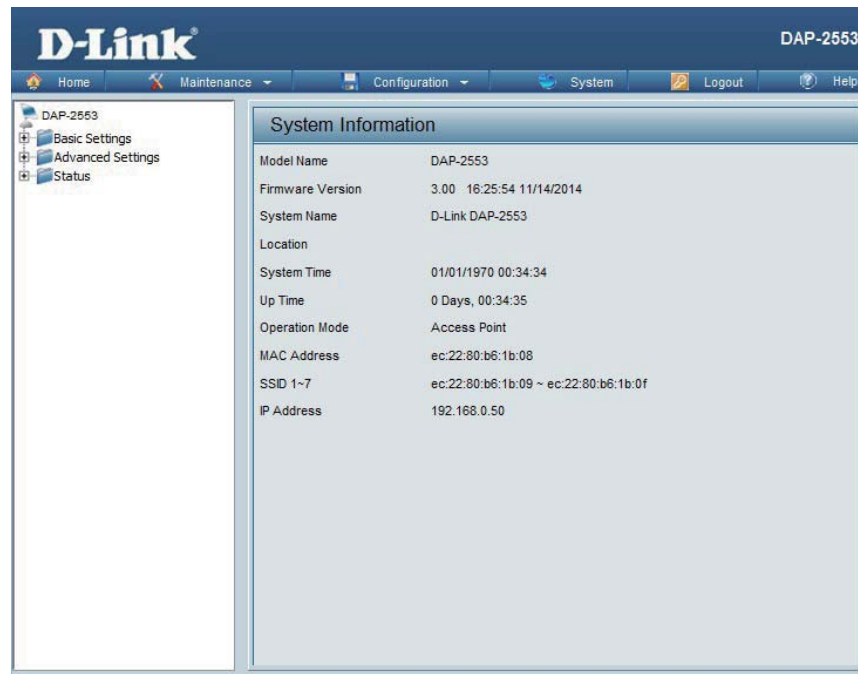
Note: If you have changed the default IP address assigned to the DAP-2553, make sure to enter the correct IP address.

Enter the user name (**admin**) and your password. Leave the password field blank by default, and click **Login**.

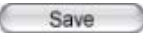


Note: If you have changed the password, make sure to enter the correct password.

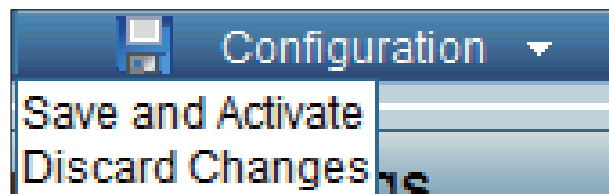
After successfully logging into the DAP-2553, the following screen will appear:



Save and Activate Settings

When making changes on most of the configuration screens in this section, use the  button at the bottom of each screen to save (not activate) your configuration changes.

You may change settings to multiple pages before activating. Once you are finished, click the **Configuration** button located at the top of the page and then click **Save and Activate**.



Basic Settings

Wireless

Access Point mode

Wireless Band: Select either **2.4GHz** or **5GHz** from the drop-down menu.

Mode: Select **Access Point** from the drop-down menu. The other three choices are **WDS with AP**, **WDS**, and **Wireless Client**.

Network Name (SSID): Service Set Identifier (SSID) is the name designated for a specific wireless local area network (WLAN). The SSID's factory default setting is **dlink**. The SSID can be easily changed to connect to an existing wireless network or to establish a new wireless network. The SSID can be up to 32 characters and is case-sensitive.

SSID Visibility: **Enable** or **Disable** SSID visibility. Enabling this feature broadcasts the SSID across the network, thus making it visible to all network users.

Auto Channel Selection: Enabling this feature automatically selects the channel that provides the best wireless performance. **Enable** is set by default. The channel selection process only occurs when the AP is booting up.

Channel: All devices on the network must share the same channel. To change the channel, first toggle the Auto Channel Selection setting to **Disable**, and then use the drop-down menu to make the desired selection.

Note: *The wireless adapters will automatically scan and match the wireless settings.*

The screenshot shows the D-Link DAP-2553 configuration interface. The top navigation bar includes Home, Maintenance, Configuration, System, Logout, and Help. The left sidebar shows a tree view with Basic Settings (Wireless, LAN, IPv6), Advanced Settings, and Status. The main content area is titled 'Wireless Settings' and contains the following fields:

- Wireless Band: 2.4GHz
- Mode: Access Point
- Network Name (SSID): dlink
- SSID Visibility: Enable
- Auto Channel Selection: Enable
- Channel: 1
- Channel Width: 20 MHz
- Captive Profile: Disable
- Authentication: Open System
- Key Settings:
 - Encryption: Disable Enable
 - Key Type: HEX
 - Key Size: 64 Bits
 - Key Index(1~4): 1
 - Network Key: [Empty text box]
 - Confirm Key: [Empty text box]

At the bottom right of the settings area is a 'Save' button. A password strength indicator is visible at the bottom of the key fields: (0-9,a-z,A-Z,~!@#%&*()_+~'-=0[]:~!.,/<>?)

- Channel Width:** Allows you to select the channel width you would like to operate in. Select **20 MHz** if you are not using any 802.11n wireless clients. **Auto 20/40 MHz** allows you to connect to both 802.11n and 802.11b/g or 802.11a wireless devices on your network.
- Captive Profile:** Enable or disable captive port profile for user authentication.
- Authentication:** Use the drop-down menu to choose **Open System, Shared Key, WPA-Personal, WPA-Enterprise, or 802.11x**.
- Select **Open System** to communicate the key across the network.
- Select **Shared Key** to limit communication to only those devices that share the same WEP settings. If multi-SSID is enabled, this option is not available.
- Select **WPA-Personal** to secure your network using a password and dynamic key changes. No RADIUS server is required.
- Select **WPA-Enterprise** to secure your network with the inclusion of a RADIUS server.
- Select 802.11x to secure your network using 802.11x authentication.

WDS with AP mode

In WDS with AP mode, the DAP-2553 wirelessly connects multiple networks while still functioning as a wireless AP.

Wireless Band: Select either **2.4GHz** or **5GHz** from the drop-down menu.

Mode: **WDS with AP** mode is selected from the drop-down menu.

Network Name (SSID): Service Set Identifier (SSID) is the name designated for a specific wireless local area network (WLAN). The SSID's factory default setting is **dlink**. The SSID can be easily changed to connect to an existing wireless network or to establish a new wireless network.

SSID Visibility: **Enable** or **Disable** SSID visibility. Enabling this feature broadcasts the SSID across the network, thus making it visible to all network users.

Auto Channel Selection: Enabling this feature automatically selects the channel that will provide the best wireless performance. This feature is not supported in WDS with AP mode. The channel selection process only occurs when the AP is booting up.

Channel: All devices on the network must share the same channel. To change the channel, use the drop-down menu to make the desired selection. (Note: The wireless adapters will automatically scan and match the wireless settings.)

Channel Width: Allows you to select the channel width you would like to operate in. Select **20 MHz** if you are not using any 802.11n wireless clients. **Auto 20/40 MHz** allows you to connect to both 802.11n and 802.11b/g or 802.11a wireless devices on your network. Enter the MAC addresses of the APs on your network that will serve as bridges to wirelessly connect multiple networks.

The screenshot shows the D-Link DAP-2553 configuration interface. The 'Wireless Settings' section is expanded, showing the following options:

- Wireless Band:** 2.4GHz
- Mode:** WDS with AP
- Network Name (SSID):** dlink
- SSID Visibility:** Enable
- Auto Channel Selection:** Disable
- Channel:** 1
- Channel Width:** 20 MHz
- Captive Profile:** Disable

Below these settings is the 'WDS' section, which includes a 'Remote AP MAC Address' field with eight input boxes (1-8) for entering MAC addresses. There is also a 'Site Survey' section with a 'Scan' button and a table with columns for CH, RSSI, BSSID, Security, and SSID. The 'Authentication' section is set to 'Open System' and includes 'Key Settings' with 'Encryption' set to 'Disable', 'Key Type' set to 'HEX', and 'Key Size' set to '64 Bits'. There are also fields for 'Key Index(1~4)', 'Network Key', and 'Confirm Key'.

- Captive Profile:** Enable or disable captive port profile for user authentication.
- Remote AP MAC Address:** Click on the **Scan** button to search for available wireless networks, then click on the available network that you want to connect with.
- Site Survey:** Use the drop-down menu to choose **Open System**, **Shared Key**, or **WPA-Personal**.
- Authentication:** Select **Open System** to communicate the key across the network.
Select **Shared Key** to limit communication to only those devices that share the same WEP settings. If multi-SSID is enabled, this option is not available.
Select **WPA-Personal** to secure your network using a password and dynamic key changes. No RADIUS server is required.

WDS mode

In WDS mode, the DAP-2553 wirelessly connects multiple networks, without functioning as a wireless AP.

Wireless Band: Select either **2.4GHz** or **5GHz** from the drop-down menu.

Mode: **WDS** is selected from the drop-down menu.

Network Name (SSID): Service Set Identifier (SSID) is the name designated for a specific wireless local area network (WLAN). The SSID's factory default setting is **dlink**. The SSID can be easily changed to connect to an existing wireless network or to establish a new wireless network.

SSID Visibility: **Enable** or **Disable** SSID visibility. Enabling this feature broadcasts the SSID across the network, thus making it visible to all network users.

Auto Channel Selection: Enabling this feature automatically selects the channel that will provide the best wireless performance. This feature is not supported in WDS mode.

Channel: All devices on the network must share the same channel. To change the channel, use the drop-down menu to make the desired selection.

Channel Width: Use the drop-down menu to choose **20 MHz** or **Auto 20/40 MHz**.

Captive Profile: Disable in WDS mode.

The screenshot displays the D-Link DAP-2553 configuration interface. The 'Wireless Settings' section is active, showing the following configurations:

- Wireless Band: 2.4GHz
- Mode: WDS
- Network Name (SSID): dlink
- SSID Visibility: Enable
- Auto Channel Selection: Disable
- Channel: 1
- Channel Width: 20 MHz
- Captive Profile: Disable

The 'WDS' section includes a 'Remote AP MAC Address' field with eight input boxes (1-8) and a 'Site Survey' button. Below this is a table with columns: CH, RSSI, BSSID, Security, and SSID.

The 'Authentication' section is set to 'Open System'. Under 'Key Settings', 'Encryption' is set to 'Disable'. 'Key Type' is 'HEX', 'Key Size' is '64 Bits', and 'Key Index' is '1'. There are input fields for 'Network Key' and 'Confirm Key'.

A 'Save' button is located at the bottom right of the configuration area.

- Remote AP MAC Address:** Enter the MAC addresses of the APs on your network that will serve as bridges to wirelessly connect multiple networks.
- Site Survey:** Click on the **Scan** button to search for available wireless networks, then click on the available network that you want to connect with.
- Authentication:** Use the drop-down menu to choose **Open System**, **Shared Key**, or **WPA-Personal**.
Select **Open System** to communicate the key across the network.
Select **Shared Key** to limit communication to only those devices that share the same WEP settings.
Select **WPA-Personal** to secure your network using a password and dynamic key changes. No RADIUS server is required.

Wireless Client mode

- Wireless Band:** Select either **2.4GHz** or **5GHz** from the drop-down menu.
- Mode:** **Wireless Client** is selected from the drop-down menu.
- Network Name (SSID):** Service Set Identifier (SSID) is the name designated for a specific wireless local area network (WLAN). The SSID's factory default setting is **dlink**. The SSID can be easily changed to connect to an existing wireless network.
- SSID Visibility:** This option is unavailable in **Wireless Client** mode.
- Auto Channel Selection:** Enabling this feature automatically selects the channel that will provide the best wireless performance. This feature is not supported in **Wireless Client** mode.
- Channel:** The channel used will be displayed, and matches the AP that the DAP-2553 is connected to when set to **Wireless Client** mode.
- Channel Width:** Use the drop-down menu to choose **20 MHz** or **Auto 20/40 MHz**.
- Captive Profile:** Disable in Wireless Client mode.
- Site Survey:** Click on the **Scan** button to search for available wireless networks, then click on the available network that you want to connect with. Use the drop-down menu to choose **Open System** or **WPA-Personal**.
- Authentication:** Select **Open System** to communicate the key across the network. Select **WPA-Personal** to secure your network using a password and dynamic key changes. No RADIUS server is required.
- Enable:** Check to enable clone MAC. This feature will allow you to change the MAC address of the access point to the MAC address of a client.
- MAC Source:** Select the MAC source from the drop-down menu.
- MAC Address:** Enter the MAC address that you would like to assign to the access point.

The screenshot displays the D-Link DAP-2553 configuration interface. The top navigation bar includes Home, Maintenance, Configuration, System, Logout, and Help. The left sidebar shows a tree view with Basic Settings (Wireless, LAN, IPv6), Advanced Settings, and Status. The main content area is titled 'Wireless Settings' and contains the following fields and options:

- Wireless Band:** 2.4GHz
- Mode:** Wireless Client
- Network Name (SSID):** dlink
- SSID Visibility:** Enable
- Auto Channel Selection:** Enable
- Channel:** 1
- Channel Width:** Auto 20/40 MHz
- Captive Profile:** Disable
- Site Survey:** A table with columns CH, RSSI, BSSID, Security, and SSID. A Scan button is located to the right of the table.
- Authentication:** Open System
- Key Settings:**
 - Encryption: Disable, Enable
 - Key Type: HEX
 - Key Size: 64 Bits
 - Key Index(1~4): 1
 - Network Key: [Text Field]
 - Confirm Key: [Text Field]
- Wireless MAC Clone:**
 - Enable:
 - MAC Source: Auto
 - MAC Address: [Text Field] : [Text Field] : [Text Field] : [Text Field] : [Text Field] : [Text Field] [Scan]
 - MAC Address: [Table]

A Save button is located at the bottom right of the configuration area.

Open System/Shared Key Authentication

Encryption: Use the radio button to disable or enable encryption.

Key Type*: Select **HEX** or **ASCII**.

Key Size: Select **64 Bits** or **128 Bits**.

Key Index (1-4): Select the 1st through the 4th key to be the active key.

Key: Input up to four keys for encryption. You will select one of these keys in the Key Index drop-down menu.

The screenshot shows the D-Link DAP-2553 configuration interface. The 'Wireless Settings' section is active. The 'Authentication' dropdown is set to 'Open System'. Under 'Key Settings', the 'Encryption' radio buttons are set to 'Disable'. The 'Key Type' dropdown is set to 'HEX' and the 'Key Size' dropdown is set to '64 Bits'. The 'Key Index(1~4)' dropdown is set to '1'. There are two empty text input fields for 'Network Key' and 'Confirm Key'. Below these fields is a validation pattern: (0-9,a-z,A-Z,~!@#%&^&*()_+ '- = {} [] ; ' | , / < > ?). A 'Save' button is located at the bottom right of the configuration area.

**Hexadecimal (HEX) digits consist of the numbers 0-9 and the letters A-F.

*ASCII (American Standard Code for Information Interchange) is a code that represents English letters using numbers ranging from 0-127.

WPA/WPA2-Personal Authentication

WPA Mode: When **WPA-Personal** is selected for Authentication type, you must also select a WPA mode from the drop-down menu: **AUTO (WPA or WPA2)**, **WPA2 Only**, or **WPA Only**. WPA and WPA2 use different algorithms. **AUTO (WPA or WPA2)** allows you to use both WPA and WPA2.

Cipher Type: When you select **WPA-Personal**, you must also select **AUTO**, **AES**, or **TKIP** from the drop-down menu.

Group Key Update: Select the interval during which the group key will be valid. The default value of **1800** is recommended. Select **Manual** to enter your key (PassPhrase).

Periodical Key Change: You can select **Periodical Key Change** to have the access point automatically change your PassPhrase. Enter the Activate From time and the time in hours to change the key.

PassPhrase: When you select **WPA-Personal**, please enter a PassPhrase in the corresponding field.

The screenshot displays the 'Wireless Settings' page for a D-Link DAP-2553 device. The interface includes a navigation menu on the left with options like 'Basic Settings', 'Wireless', 'LAN', 'IPv6', 'Advanced Settings', and 'Status'. The main content area is titled 'Wireless Settings' and contains the following configuration fields:

- Wireless Band:** 2.4GHz
- Mode:** Access Point
- Network Name (SSID):** dlink
- SSID Visibility:** Enable
- Auto Channel Selection:** Enable
- Channel:** 1
- Channel Width:** 20 MHz
- Captive Profile:** Disable
- Authentication:** WPA-Personal
- PassPhrase Settings:**
 - WPA Mode:** AUTO (WPA or WPA2)
 - Cipher Type:** Auto
 - Group Key Update Interval:** 3600 (Seconds)
 - Manual:** Selected (radio button)
 - Periodical Key Change:** Unselected (radio button)
 - Activated From:** Sun 00:00
 - Time Interval:** 1 (1~168)hour(s)
 - PassPhrase:** [Empty field]
 - Confirm PassPhrase:** [Empty field]

A 'Save' button is located at the bottom right of the settings area. A notice at the bottom of the settings section reads: 'notice: 8~63 in ASCII or 64 in Hex. (0-9,a-z,A-Z,~!@#%&*()_+^"{}|'./<>?)'.

WPA/WPA2-Enterprise Authentication

- WPA Mode:** When **WPA-Enterprise** is selected, you must also select a WPA mode from the drop-down menu: **AUTO (WPA or WPA2)**, **WPA2 Only**, or **WPA Only**. WPA and WPA2 use different algorithms. **AUTO (WPA or WPA2)** allows you to use both WPA and WPA2.
- Cipher Type:** When WPA-Enterprise is selected, you must also select a cipher type from the drop-down menu: **Auto**, **AES**, or **TKIP**.
- Group Key Update Interval:** Select the interval during which the group key will be valid. The recommended value is **1800**. A lower interval may reduce data transfer rates.
- Network Access Protection:** Enable or disable Microsoft Network Access Protection.
- RADIUS Server:** Enter the IP address of the RADIUS server. Click External if the RADIUS server is on your network or Internal if you are using the RADIUS server on the DAP-2553.
- RADIUS Port:** Enter the RADIUS port.
- RADIUS Secret:** Enter the RADIUS secret.
- Accounting Mode:** Select if you want to use a different server for accounting.
- Accounting Server:** Enter the IP address of the Accounting server.
- Accounting Port:** Enter the Accounting port (1813 is the default).
- Accounting Secret:** Enter the Accounting secret.

The screenshot displays the D-Link DAP-2553 configuration interface. The main content area is titled "Wireless Settings". The "Authentication" dropdown is set to "WPA-Enterprise". Under "RADIUS Server Settings", the "WPA Mode" is set to "AUTO (WPA or WPA2)", the "Cipher Type" is "Auto", and the "Group Key Update Interval" is "3600 (Seconds)". The "Network Access Protection" section has "Network Access Protection" set to "Disable". The "RADIUS Server Mode" is set to "External". The "Primary RADIUS Server Setting" section includes fields for "RADIUS Server", "RADIUS Port" (1812), and "RADIUS Secret". The "Backup RADIUS Server Setting (Optional)" section also includes fields for "RADIUS Server", "RADIUS Port" (1812), and "RADIUS Secret". The "Primary Accounting Server Setting" section includes fields for "Accounting Server", "Accounting Port" (1813), and "Accounting Secret". The "Backup Accounting Server Setting (Optional)" section also includes fields for "Accounting Server", "Accounting Port" (1813), and "Accounting Secret". A "Save" button is located at the bottom right of the configuration area.

802.11x Authentication

- Key Update Interval:** Select the interval during which the group key will be valid (**1800** is the recommended value). A lower interval may reduce data transfer rates.
- RADIUS Server:** Enter the IP address of the RADIUS server.
- RADIUS Port:** Enter the RADIUS port.
- RADIUS Secret:** Enter the RADIUS secret.
- Accounting Mode:** Select if you want to use a different server for accounting.
- Accounting Server:** Enter the IP address of the Accounting server.
- Accounting Port:** Enter the Accounting port (1813 is the default).
- Accounting Secret:** Enter the Accounting secret.

The screenshot shows the D-Link DAP-2553 configuration interface. The main content area is titled "Wireless Settings". The configuration options are as follows:

- Wireless Band: 2.4GHz
- Mode: Access Point
- Network Name (SSID): dlink
- SSID Visibility: Enable
- Auto Channel Selection: Enable
- Channel: 1
- Channel Width: 20 MHz
- Captive Profile: Disable
- Authentication: 802.1X

Below the main settings, there are sections for RADIUS and Accounting server configurations:

- RADIUS Server Settings:** Key Update Interval is set to 300 (Seconds).
- RADIUS Server Mode:** External (selected) and Internal.
- Primary RADIUS Server Setting:** RADIUS Server, RADIUS Port (1812), and RADIUS Secret.
- Backup RADIUS Server Setting (Optional):** RADIUS Server, RADIUS Port (1812), and RADIUS Secret.
- Primary Accounting Server Setting:** Accounting Mode (Disable), Accounting Server, Accounting Port (1813), and Accounting Secret.
- Backup Accounting Server Setting (Optional):** Accounting Server, Accounting Port (1813), and Accounting Secret.

A "Save" button is located at the bottom right of the configuration area.

LAN

LAN is short for Local Area Network. This is considered your internal network. These are the IP settings of the LAN interface for the DAP-2553. These settings may be referred to as private settings. You may change the LAN IP address if needed. The LAN IP address is private to your internal network and cannot be seen on the Internet.

Get IP From: **Static IP (Manual)** is chosen here. Choose this option if you do not have a DHCP server in your network, or if you wish to assign a static IP address to the DAP-2553. When **Dynamic IP (DHCP)** is selected, the other fields here will be grayed out. Please allow about two minutes for the DHCP client to be functional once this selection is made.

IP Address: The default IP address is 192.168.0.50. Assign a static IP address that is within the IP address range of your network.

Subnet Mask: Enter the subnet mask. All devices in the network must share the same subnet mask.

Default Gateway: Enter the IP address of the gateway in your network. If there is a gateway in your network, please enter an IP address within the range of your network.

DNS: Enter a DNS server IP address of your choice.

The screenshot displays the D-Link DAP-2553 web interface. The top navigation bar includes 'Home', 'Maintenance', 'Configuration', 'System', 'Logout', and 'Help'. The left sidebar shows a tree view with 'Basic Settings' (Wireless, LAN, IPv6) and 'Advanced Settings' (Status). The main content area is titled 'LAN Settings' and contains the following fields:

Get IP From	Static IP (Manual)
IP Address	192.168.0.50
Subnet Mask	255.255.255.0
Default Gateway	
DNS	

A 'Save' button is located at the bottom right of the settings area.

IPv6

The IPv6 function allows you access DAP-2553 using an IPv6 address.

Enable IPv6: Check this box to enable IPv6.

Get IP From: Select either Static to enter your own IP address or Auto to be automatically assigned by a DHCP server or IPv6 gateway.

IP Address: Assign an IPv6 IP address.

Prefix: The Prefix is used to determine what subnet an IP address belongs to. It must be 0~128..

Default Gateway: Enter the default gateway address. This is usually the IP address of your router.

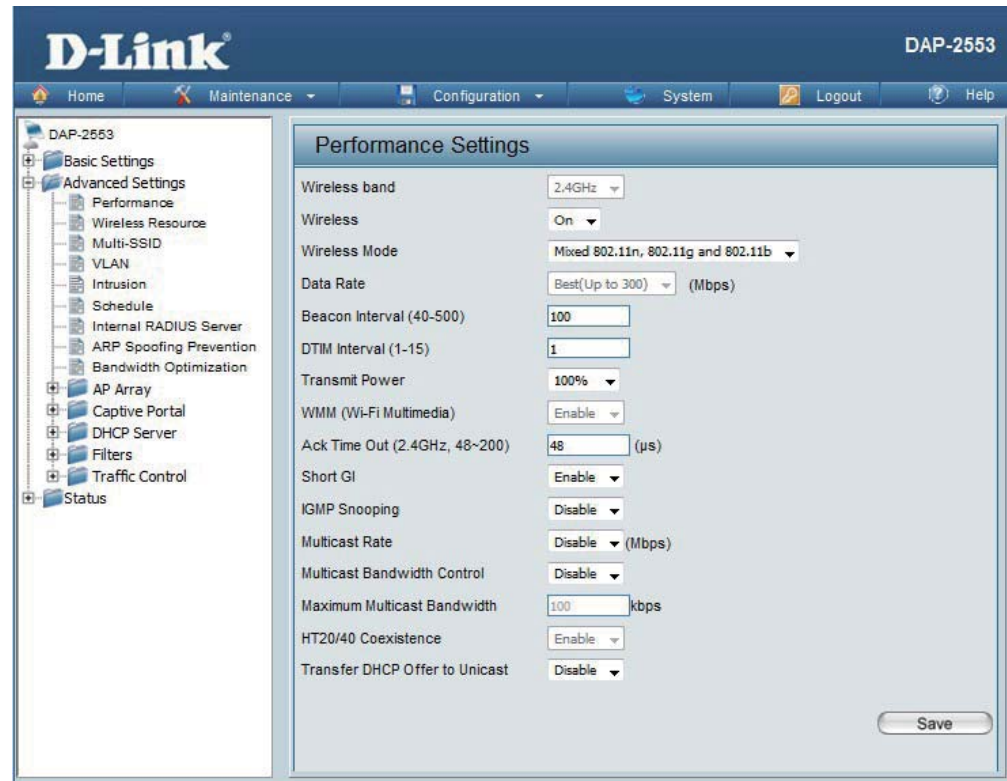


Note: If IPv6 is enabled, AP Array, QoS, and Traffic Manager will all be disabled. Also, AP Client mode will change to AP mode.

Advanced Settings

Performance

- Wireless Band:** Indicate 2.4GHz or 5GHz.
- Wireless:** Use the drop-down menu to turn the wireless function **On** or **Off**.
- Wireless Mode:** The different combination of clients that can be supported include **Mixed 802.11n, 802.11g and 802.11b, Mixed 802.11g and 802.11b** and **802.11n Only** in the 2.4 GHz band and **Mixed 802.11n and 802.11a, 802.11a only**, and **802.11n Only** in the 5 GHz band. Please note that when backwards compatibility is enabled for legacy (802.11a/g/b) clients, degradation of 802.11n wireless performance is expected.
- Data Rate*:** Indicate the base transfer rate of wireless adapters on the wireless LAN. The AP will adjust the base transfer rate depending on the base rate of the connected device. If there are obstacles or interference, the AP will step down the rate. This option is enabled in **Mixed 802.11g and 802.11b** mode (for 2.4 GHz) and **802.11a Only** mode (for 5 GHz). The choices available are **Best (Up to 54)**, **54, 48, 36, 24, 18, 12, 9, 6** for 5 GHz and **Best (Up to 54)**, **54, 48, 36, 24, 18, 12, 9, 6, 11, 5.5, 2** or **1** for 2.4 GHz.



*Maximum wireless signal rate derived from IEEE Standard 802.11 specifications. Actual data throughput may vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead can lower actual data throughput rate.

Beacon Interval (40-500):	Beacons are packets sent by an access point to synchronize a wireless network. Specify a value in milliseconds. The default (100) is recommended. Setting a higher beacon interval can help to save the power of wireless clients, while setting a lower one can help a wireless client connect to an access point faster.
DTM Interval (1-15):	Select a Delivery Traffic Indication Message setting between 1 and 15 . The default value is 1 . DTIM is a countdown informing clients of the next window for listening to broadcast and multicast messages.
Transmit Power:	This setting determines the power level of the wireless transmission. Transmitting power can be adjusted to eliminate overlapping of wireless area coverage between two access points where interference is a major concern. For example, if wireless coverage is intended for half of the area, then select 50% as the option. Use the drop-down menu to select 100% , 50% , 25% , or 12.5% .
WMM (Wi-Fi Multimedia):	WMM stands for Wi-Fi Multimedia. Enabling this feature will improve the user experience for audio and video applications over a Wi-Fi network.
Ack Time Out (2.4 GHZ, 48~200) or Ack Time Out (5 GHZ, 25~200):	To effectively optimize throughput over long distance links, enter a value for Acknowledgement Time Out between 25 and 200 microseconds for 5 GHz or from 48 to 200 microseconds in the 2.4 GHz in the field provided.
Short GI:	Select Enable or Disable . Enabling a short guard interval can increase throughput. However, be aware that it can also increase the error rate in some installations due to increased sensitivity to radio-frequency installations.
IGMP Snooping:	Select Enable or Disable . Internet Group Management Protocol allows the AP to recognize IGMP queries and reports sent between routers and an IGMP host (wireless STA). When IGMP snooping is enabled, the AP will forward multicast packets to an IGMP host based on IGMP messages passing through the AP.
Multicast Rate:	Adjust the multicast packet data rate here. The multicast rate is supported in AP mode , (2.4 GHz and 5 GHz) and WDS with AP mode , including Multi-SSIDs.
Multicast Bandwidth Control :	Adjust the multicast packet data rate here. The multicast rate is supported in AP mode, and WDS with AP mode, including Multi-SSIDs
Maximum Multicast Bandwidth :	Set the multicast packets maximum bandwidth pass through rate from the Ethernet interface to the Access Point.

HT20/40 Coexistence :	Enable this option to reduce interference from other wireless networks in your area. If the channel width is operating at 40MHz and there is another wireless network's channel over-lapping and causing interference, the Access Point will automatically change to 20MHz.
Transfer DHCP Offer to Unicast :	Enable to transfer the DHCP Offer to Unicast from LAN to WLAN, suggest to enable this function if stations number is larger than 30.

Wireless Resource Control

The Wireless Resource Control window is used to configure the wireless connection settings so that the device can detect the better wireless connection in your environment.

Wireless band: Select **2.4GHz** in default.

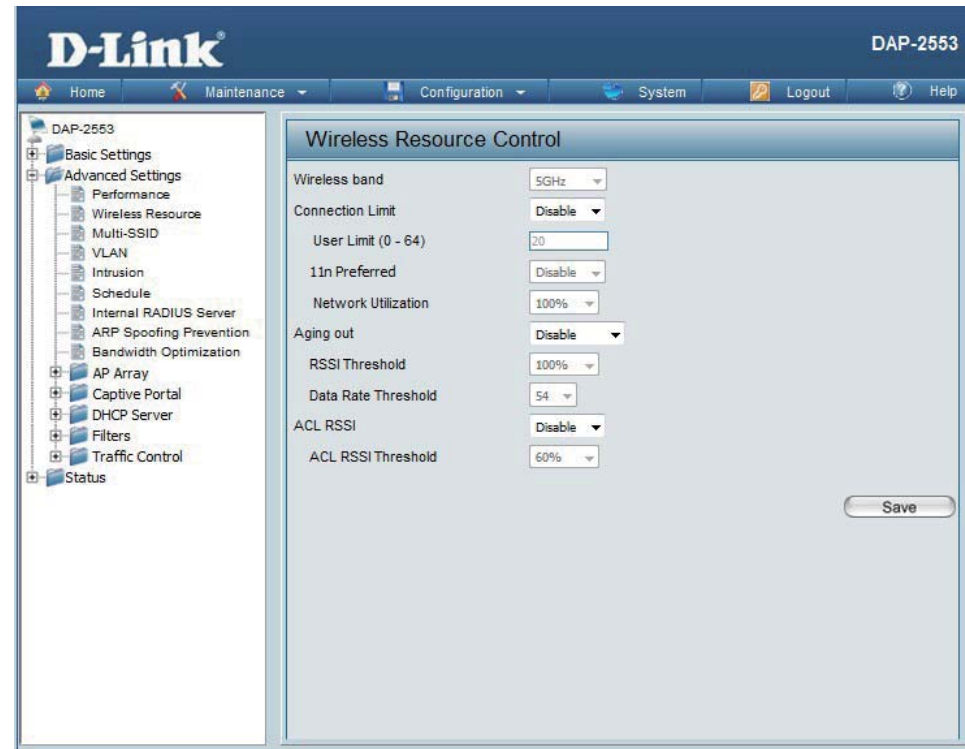
Connection Limit: Select **Enable** or **Disable**. This is an option for load balancing. This determines whether to limit the number of users accessing this device. The exact number is entered in the User Limit field below. This feature allows the user to share the wireless network traffic and the client using multiple APs. If this function is enabled and when the number of users exceeds this value, or the network utilization of this AP exceeds the percentage that has been specified, the DAP-2553 will not allow clients to associate with the AP.

User Limit: Set the maximum amount of users that are allowed access (zero to 64 users) to the device using the specified wireless band. The default setting is 20.

11n Preferred: Use the drop-down menu to **Enable** the 11n Preferred function. The wireless clients with 802.11n protocol will have higher priority to connect to the device.

Network Utilization: Set the maximum utilization of this access point for service. The DAP-2553 will not allow any new clients to associate with the AP if the utilization exceeds the value the user specifies. Select a utilization percentage between 100%, 80%, 60%, 40%, 20%, or 0%. When this network utilization threshold is reached, the device will pause one minute to allow network congestion to dissipate.

Aging out: Use the drop-down menu to select the criteria of disconnecting the wireless clients. Available options are **RSSI** and **Data Rate**.



- RSSI Thresh-old:** When **RSSI** is selected in the **Aging out** drop-down menu, select the percentage of RSSI here. When the RSSI of wireless clients is lower than the specified percentage, the device disconnects the wireless clients.
- Data Rate Threshold:** When **Data Rate** is selected in the **Aging out** drop-down menu, select the threshold of data rate here. When the data rate of wireless clients is lower than the specified number, the device disconnects the wireless clients.
- ACL RSSI:** Use the drop-down menu to **Enable** the function. When enabled, the device denies the connection request from the wireless clients with the RSSI lower than the specified threshold below.
- ACL RSSI Threshold:** Set the ACL RSSI Threshold.

Multi-SSID

The device supports up to four multiple Service Set Identifiers. In the **Basic > Wireless** section, you can set the Primary SSID. The SSID's factory default setting is **dlink**. The SSID can be easily changed to connect to an existing wireless network or to establish a new wireless network.

Enable Multi-SSID: Check to enable support for multiple SSIDs.

Enable Priority : Check to enable the priority support for Multi-SSID

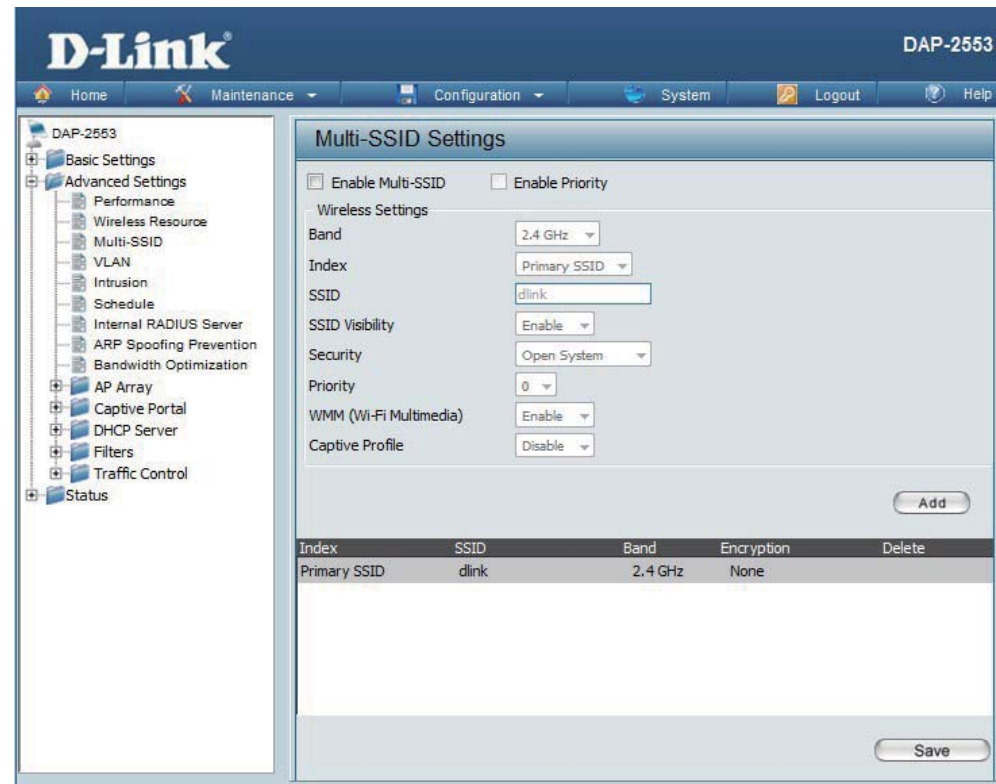
Band: This read-only value is the current band setting.

Index: You can select up to three multi-SSIDs. With the Primary SSID, you have a total of four multi-SSIDs.

SSID: Service Set Identifier (SSID) is the name designated for a specific wireless local area network (WLAN). The SSID's factory default setting is **dlink**. The SSID can be easily changed to connect to an existing wireless network or to establish a new wireless network.

SSID Visibility: **Enable** or **Disable** SSID visibility. Enabling this feature broadcasts the SSID across the network, thus making it visible to all network users.

Security: The Multi-SSID security can be **Open System**, **WPA-Personal**, or **WPA-Enterprise**. For a detailed description of the Open System parameters, please go to page 23. For a detailed description of the WPA-Personal parameters, please go to page 24. For a detailed description of the WPA-Enterprise parameters, please go to page 25.



Priority:	Check the Enable Priority box at the top of this window to enable. Select the priority from the drop-down menu.
WMM (Wi-Fi Multimedia):	Select Enable or Disable .
Captive Profile:	Enable or disable captive profile for user authentication.

VLAN

VLAN List

The DAP-2553 supports VLANs. VLANs can be created with a Name and VID. Mgmt (TCP stack), LAN, Primary/Multiple SSID, and WDS connection can be assigned to VLANs as they are physical ports. Any packet which enters the DAP-2553 without a VLAN tag will have a VLAN tag inserted with a PVID.

The VLAN List tab displays the current VLANs.

VLAN Status: Use the radio button to toggle between **Enable** or **Disable**. Next, go to the **Add/Edit VLAN** tab to add or modify an item on the **VLAN List** tab.

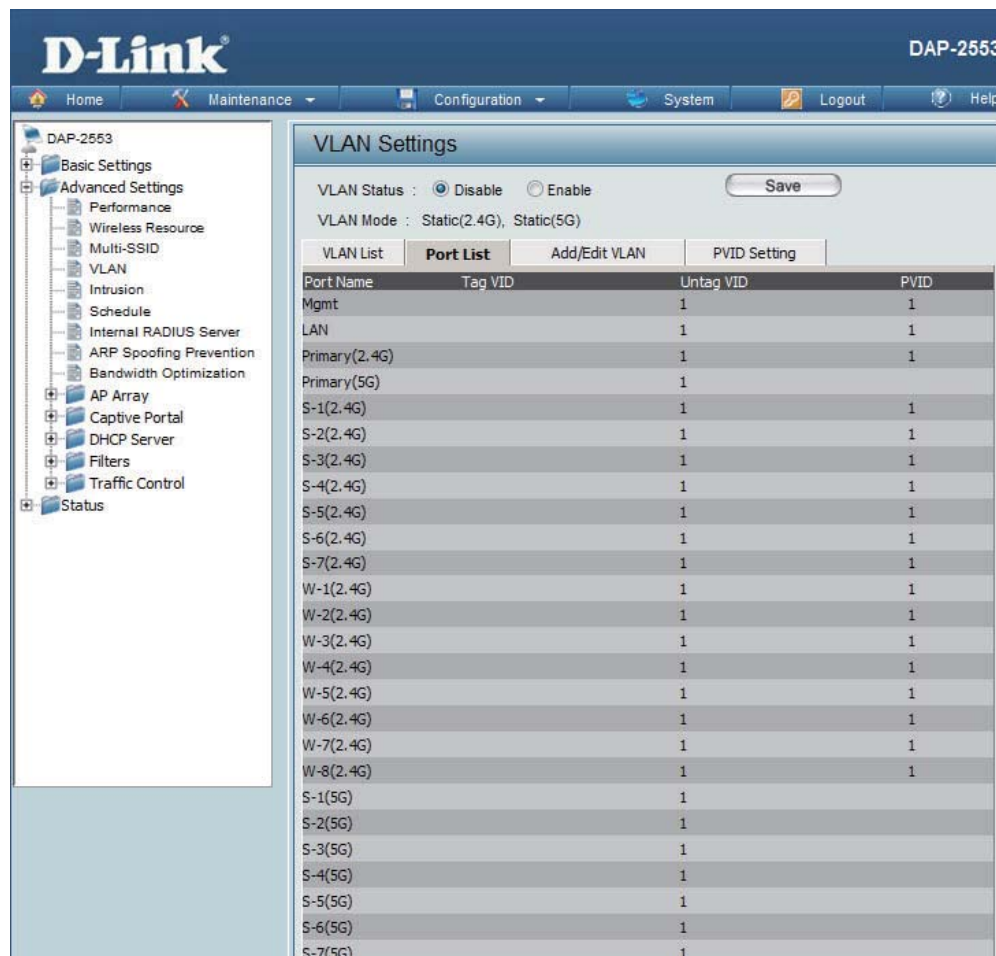
The screenshot shows the D-Link DAP-2553 web interface. The left sidebar contains a navigation menu with categories like Basic Settings, Advanced Settings, and Status. The main content area is titled 'VLAN Settings' and includes a 'VLAN Status' section with radio buttons for 'Disable' (selected) and 'Enable', and a 'Save' button. Below this is the 'VLAN Mode' section, set to 'Static(2.4G), Static(5G)'. The 'VLAN List' tab is active, displaying a table with columns for VID, VLAN Name, Untag VLAN Ports, Tag VLAN Ports, Edit, and Delete. The table contains one entry for VID 1, named 'default', with a list of untagged and tagged ports.

VID	VLAN Name	Untag VLAN Ports	Tag VLAN Ports	Edit	Delete
1	default	Mgmt, LAN, Primary(2.4G), S-1(2.4G), S-2(2.4G), S-3(2.4G), S-4(2.4G), S-5(2.4G), S-6(2.4G), S-7(2.4G), W-1(2.4G), W-2(2.4G), W-3(2.4G), W-4(2.4G), W-5(2.4G), W-6(2.4G), W-7(2.4G), W-8(2.4G), Primary(5G), S-1(5G), S-2(5G), S-3(5G), S-4(5G), S-5(5G), S-6(5G), S-7(5G), W-1(5G), W-2(5G), W-3(5G), W-4(5G), W-5(5G), W-6(5G), W-7(5G), W-8(5G)			

Port List

The Port List tab displays the current ports. If you want to configure the guest and internal networks on a Virtual LAN (VLAN), the switch and DHCP server you are using must also support VLANs. As a prerequisite step, configure a port on the switch for handling VLAN tagged packets as described in the IEEE 802.1Q standard.

- VLAN Status:** Use the radio button to toggle to Enable. Next, go to the **Add/Edit VLAN** tab to add or modify an item on the **VLAN List** tab.
- Port Name:** The name of the port is displayed in this column.
- Tag VID:** The Tagged VID is displayed in this column.
- Untag VID:** The Untagged VID is displayed in this column.
- PVID:** The Port VLAN Identifier is displayed in this column.



The screenshot shows the D-Link DAP-2553 web interface. The top navigation bar includes Home, Maintenance, Configuration, System, Logout, and Help. The left sidebar shows a tree view of settings categories: Basic Settings, Advanced Settings (Performance, Wireless Resource, Multi-SSID, VLAN, Intrusion, Schedule, Internal RADIUS Server, ARP Spoofing Prevention, Bandwidth Optimization), AP Array, Captive Portal, DHCP Server, Filters, Traffic Control, and Status.

The main content area is titled "VLAN Settings" and includes a "Save" button. Below the settings are tabs for "VLAN List", "Port List", "Add/Edit VLAN", and "PVID Setting". The "Port List" tab is active, displaying a table with the following data:

Port Name	Tag VID	Untag VID	PVID
Mgmt	1	1	1
LAN	1	1	1
Primary(2.4G)	1	1	1
Primary(5G)	1	1	1
S-1(2.4G)	1	1	1
S-2(2.4G)	1	1	1
S-3(2.4G)	1	1	1
S-4(2.4G)	1	1	1
S-5(2.4G)	1	1	1
S-6(2.4G)	1	1	1
S-7(2.4G)	1	1	1
W-1(2.4G)	1	1	1
W-2(2.4G)	1	1	1
W-3(2.4G)	1	1	1
W-4(2.4G)	1	1	1
W-5(2.4G)	1	1	1
W-6(2.4G)	1	1	1
W-7(2.4G)	1	1	1
W-8(2.4G)	1	1	1
S-1(5G)	1	1	1
S-2(5G)	1	1	1
S-3(5G)	1	1	1
S-4(5G)	1	1	1
S-5(5G)	1	1	1
S-6(5G)	1	1	1
S-7(5G)	1	1	1

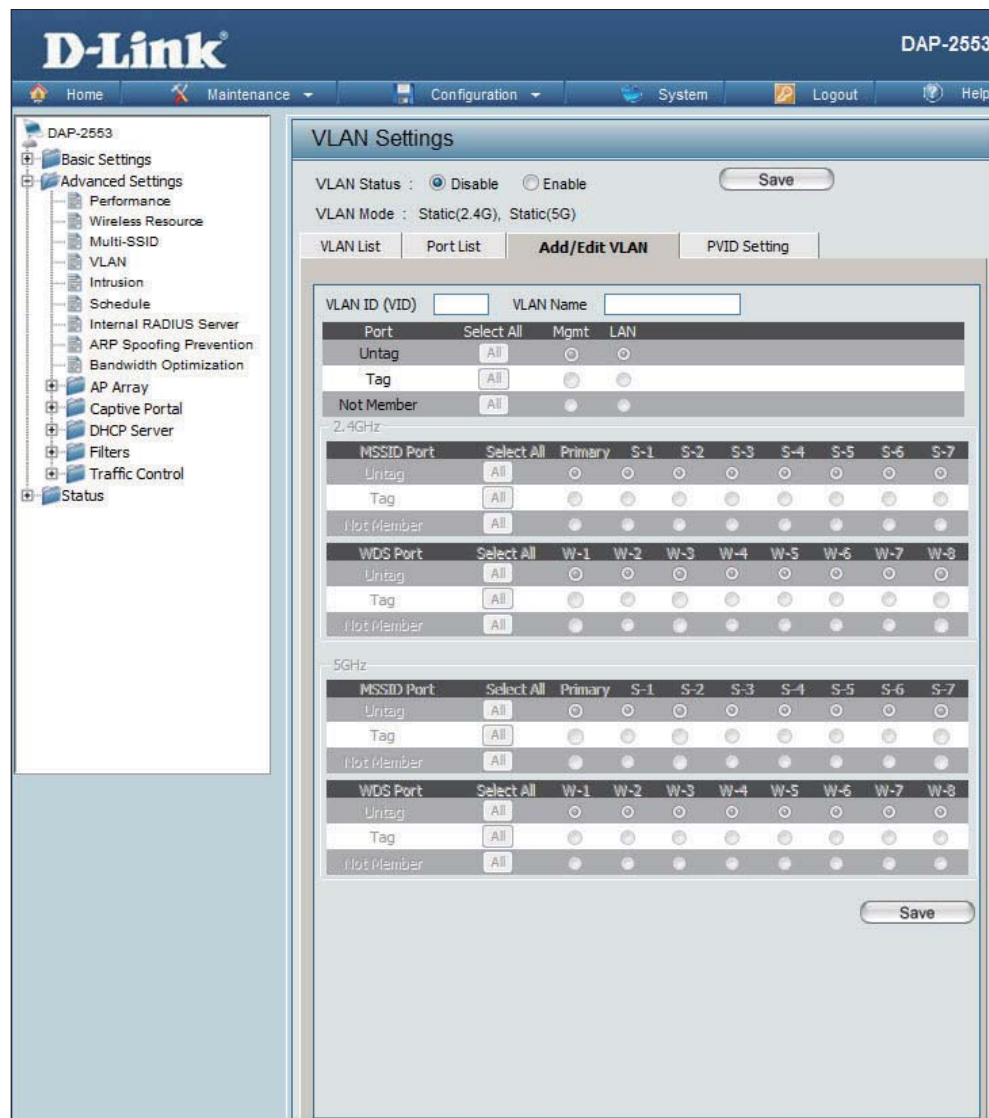
Add/Edit VLAN

The **Add/Edit VLAN** tab is used to configure VLANs. Once you have made the desired changes, click the **Save** button to let your changes take effect.

VLAN Status: Use the radio button to toggle to Enable.

VLAN ID: Provide a number between **1** and **4094** for the Internal VLAN.

VLAN Name: Enter the VLAN to add or modify.

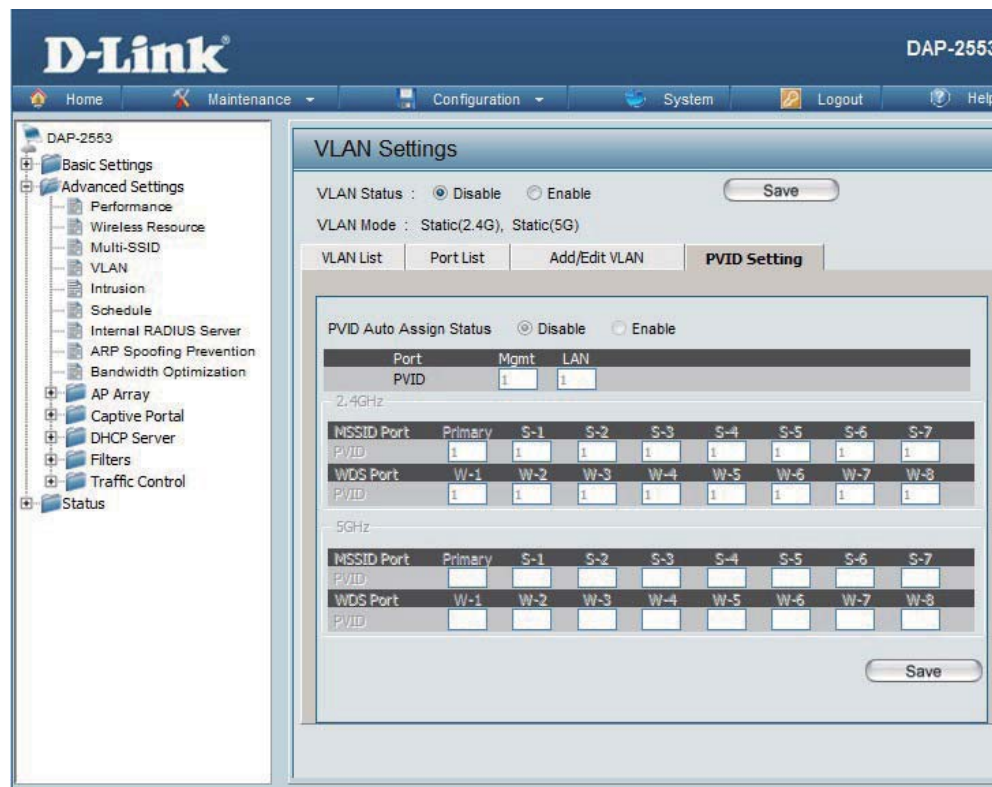


PVID Setting

The **PVID Setting** tab is used to enable/disable the Port VLAN Identifier Auto Assign Status as well as to configure various types of PVID settings. Click the **Save** button to let your changes take effect.

VLAN Status: Use the radio button to toggle between **Enable** and **Disable**.

PVID Auto Assign Status: Use the radio button to toggle PVID auto assign status to **Enable**.

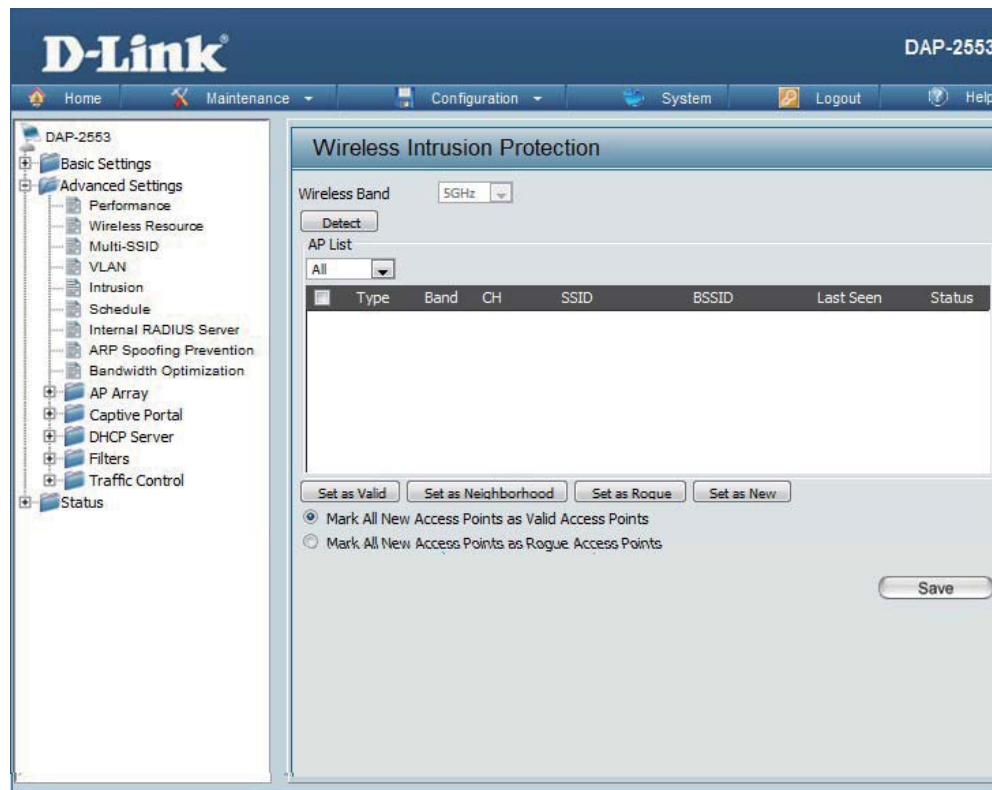


Intrusion

The Wireless Intrusion Protection window is used to set APs as **All**, **Valid**, **Neighborhood**, **Rogue**, and **New**. Click the **Save** button to let your changes take effect.

AP List: The choices include **All**, **Valid**, **Neighbor**, **Rogue**, and **New**.

Detect: Click this button to initiate a scan of the network.



Schedule

The Wireless Schedule Settings window is used to add and modify scheduling rules on the device. Click the **Save** button to let your changes take effect.

Wireless Schedule:	Use the drop-down menu to enable the device's scheduling feature.
Name:	Enter a name for the new scheduling rule in the field provided.
Index:	Select the index from the drop-down menu.
SSID:	Enter the name of your wireless network (SSID).
Day(s):	Toggle the radio button between All Week and Select Day(s) . If the second option is selected, check the specific days you want the rule to be effective on.
All Day(s):	Check this box to have your settings apply 24 hours a day.
Start Time:	Enter the start time for your rule. If you selected All Day , this option will be greyed out.
End Time:	Enter the end time for your rule.
Add:	Click to add the rule to the list.
Schedule Rule List:	This section will display the list of created schedules.
Save:	Click the Save button to save your created rules.

Internal RADIUS Server

The DAP-2553 features a built-in RADIUS server. Once you have finished adding a RADIUS account, click the Save button to let your changes take effect. The newly-created account will appear in this RADIUS Account List. The radio buttons allow the user to enable or disable the RADIUS account. Click the icon in the delete column to remove the RADIUS account. We suggest you limit the number of accounts below 30.

User Name: Enter a name to authenticate user access to the internal RADIUS server.

Password: Enter a password to authenticate user access to the internal RADIUS server. The length of your password should be 8~64.

Status: Toggle the drop-down menu between Enable and Disable.

RADIUS Account List: Displays the list of users.

The screenshot shows the D-Link web interface for the DAP-2553 device. The top navigation bar includes 'Home', 'Maintenance', 'Configuration', 'System', 'Logout', and 'Help'. The left sidebar shows a tree view of configuration options, with 'Internal RADIUS Server' selected. The main content area is titled 'Internal RADIUS Server' and contains two sections: 'Add RADIUS Account' and 'RADIUS Account list'. The 'Add RADIUS Account' section has input fields for 'User Name' and 'Password', and a 'Status' dropdown menu set to 'Enable'. The 'RADIUS Account list' section is currently empty, with columns for 'User Name', 'Enable', 'Disable', and 'Delete'. A 'Save' button is located at the bottom right of the main content area.

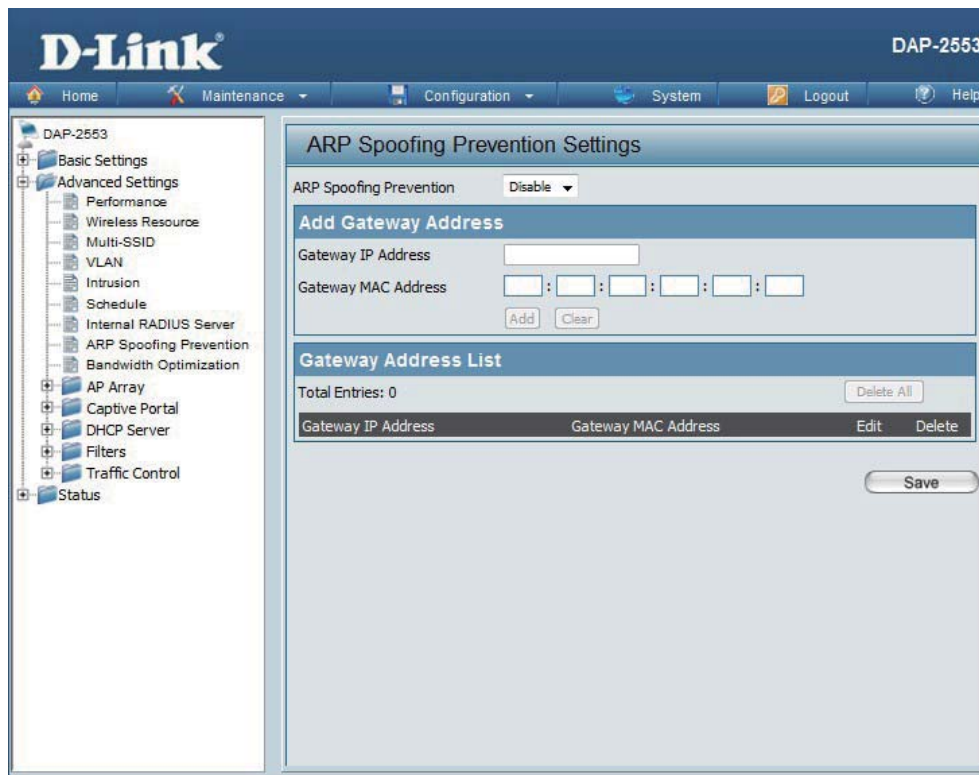
ARP Spoofing Prevention

The ARP Spoofing Prevention feature allows users to add IP/MAC address mapping to prevent arp spoofing attack.

ARP Spoofing Prevention: This check box allows you to enable the arp spoofing prevention function.

Gateway IP Address: Enter a gateway IP address.

Gateway MAC Address: Enter a gateway MAC address.



Bandwidth Optimization

The Bandwidth Optimization window allows the user to manage the bandwidth of the device and arrange the bandwidth for various wireless clients. When the Bandwidth Optimization rule is finished, click the Add button. To discard the Add Bandwidth Optimization Rule settings, click the Clear button. Click the Save button to let your changes take effect.

Enable Bandwidth Optimization: Use the drop-down menu to Enable the Bandwidth Optimization function.

Downlink Bandwidth: Enter the downlink bandwidth of the device in Mbits per second.

Uplink Bandwidth: Enter the uplink bandwidth of the device in Mbits per second.

Allocate average BW for each station: AP will distribute average bandwidth for each client.

Allocate maximum BW for each station: Specify the maximum bandwidth for each connected client. Reserve certain bandwidth for future clients.

Allocate different BW for b/g/n stations: The weight of 11b/g/n client are 10%/20%/70% ; 20%/80%. AP will distribute different bandwidth for 11b/g/n clients.

Allocate specific BW for SSID: All clients share the total bandwidth.

Rule Type: Use the drop-down menu to select the type that is applied to the rule. Available options are: Allocate average BW for each station, Allocate maximum BW for each station, Allocate different BW for 11 b/g/n stations, and Allocte specific BW for SSID.

D-Link DAP-2553

Home Maintenance Configuration System Logout Help

DAP-2553

- Basic Settings
- Advanced Settings
 - Performance
 - Wireless Resource
 - Multi-SSID
 - VLAN
 - Intrusion
 - Schedule
 - Internal RADIUS Server
 - ARP Spoofing Prevention
 - Bandwidth Optimization
- AP Array
- Captive Portal
- DHCP Server
- Filters
- Traffic Control
- Status

Bandwidth Optimization

Enable Bandwidth Optimization:

Downlink Bandwidth: Mbits/sec

Uplink Bandwidth: Mbits/sec

Add Bandwidth Optimization Rule

Rule Type:

Band:

SSID Index:

Downlink Speed: Kbits/sec

Uplink Speed: Kbits/sec

Bandwidth Optimization Rules

Band	Type	SSID Index	Downlink Speed	Uplink Speed	Edit	Del

Band: Indicate the selected wireless band for DAP-2553.

SSID Index: Use the drop-down menu to select the SSID for the specified wireless band.

Downlink Speed: Enter the limitation of the downloading speed in either Kbits/sec or Mbits/sec for the rule.

Uplink Speed: Enter the limitation of the uploading speed in either Kbits/sec or Mbits/sec for the rule.

AP Array

AP Array Scan

The AP Array window is used to create up to 32 APs on a local network to be organized into a single group in order to increase ease of management. Click the **Save** button to let your changes take effect. Central WiFiManager and AP Array are mutually exclusive functions.

Enable AP Array: Select the check box to enable the AP array function. The three modes that are available are **Master**, **Backup Master**, and **Slave**. APs in the same array will use the same configuration. The configuration will sync the Master AP to the Slave AP and the Backup Master AP when a Slave AP and a Backup Master AP join the AP array.

AP Array Name: Enter an AP array name for the group here.

AP Array Password: Enter an AP array password for the group here. This password must be the same on all the APs in the group.

Scan AP Array List: Click this button to initiate a scan of all the available APs currently on the network.

Connection Status: Display the AP array connection status.

AP Array List: This table displays the current AP array status for the following parameters: Array Name, Master IP, MAC, Master, Backup Master, Slave, and Total.

Current Members: This table displays all the current array members. The DAP-2553 AP array feature supports up to eight AP array members.

The screenshot shows the D-Link DAP-2553 web interface. The main configuration area is titled "AP Array Scan" and includes the following elements:

- Enable AP Array (Version: 2.0)
- Mode selection: Master, Backup Master, Slave
- AP Array Name:
- AP Array Password:
- Scan AP Array List:
- Connection Status: Disconnect
- AP Array List table:

Array Name	Master IP	MAC	Master	Backup Master	Slave	Total

Current Members table:

Index	Role	IP Address	MAC Address	Location

A "Save" button is located at the bottom right of the configuration area.

Configuration Settings

In the AP array configuration settings windows, users can specify which settings all the APs in the group will inherit from the master AP. Make the required selection in this window and click the **Save** button to accept the changes made.

Enable AP Array Configuration: Select to **Enable** or **Disable** the AP array configure feature here.

Wireless Basic Settings: Select this option to specify the basic wireless settings that the APs in the group will inherit.

Wireless Advanced Settings: Select this option to specify the advanced wireless settings that the APs in the group will inherit.

Multiple SSID & VLAN: Select this option to specify the multiple SSIDs and VLAN settings that the APs in the group will inherit.

Advanced Functions: Select this option to specify the other advanced settings that the APs in the group will inherit.

Administration Settings: Select this option to specify the administrative settings that the APs in the group will inherit.

The screenshot shows the 'AP Array Configuration' window. At the top, there is a title bar. Below it, the 'Enable AP Array Configuration' section has a dropdown menu set to 'Enable' and a 'Clear all' button. Below this are five expandable sections, each with a checkbox: 'Wireless Basic Settings', 'Wireless Advanced Settings', 'Multiple SSID & VLAN', 'Advanced Functions', and 'Administration Settings'. At the bottom right of the window is a 'Save' button.

Wireless Basic Settings

Network Name (SSID): Select this option to use the same SSID.

SSID Visibility: Select this option to enable SSID visibility.

Auto Channel Selection: Select this option to use auto channel selection.

Channel Width: Select this option to use the same channel width.

Security: Select this option to use the same wireless security.

Captive Profile: Select this option to use the same captive profile settings.

Band: Select this option to use the same wireless band.

Wireless Basic Settings <input checked="" type="checkbox"/>			
Network Name (SSID)	<input checked="" type="checkbox"/>	SSID Visibility	<input checked="" type="checkbox"/>
Auto Channel Selection	<input checked="" type="checkbox"/>	Channel Width	<input checked="" type="checkbox"/>
Security	<input checked="" type="checkbox"/>	Captive Profile	<input checked="" type="checkbox"/>
Band	<input checked="" type="checkbox"/>		

Wireless Advanced Settings

Wireless: Select this option to use the same wireless settings.

Wireless Mode: Select this option to use the same wireless mode.

Data Rate: Select this option to use the same data rate.

Beacon Interval: Select this option to use the same beacon interval.

DTIM Interval: Select this option to use the same DTIM interval.

Transmit Power: Select this option to use the same transmit power.

WMM (Wi-Fi Multimedia): Select this option to use the same WMM settings.

Ack Time Out: Select this option to use the same ACK timeout value.

Wireless ACL: Select this option to use the same wireless ACL settings.

Wireless Advanced Settings <input checked="" type="checkbox"/>			
Wireless	<input checked="" type="checkbox"/>	Wireless Mode	<input checked="" type="checkbox"/>
Data Rate	<input checked="" type="checkbox"/>	Beacon Interval	<input checked="" type="checkbox"/>
DTIM Interval	<input checked="" type="checkbox"/>	Transmit Power	<input checked="" type="checkbox"/>
WMM (Wi-Fi Multimedia)	<input checked="" type="checkbox"/>	Ack Time Out	<input checked="" type="checkbox"/>
Wireless ACL	<input checked="" type="checkbox"/>	Short GI	<input checked="" type="checkbox"/>
Link Integrity	<input checked="" type="checkbox"/>	Connection Limit	<input checked="" type="checkbox"/>
IGMP Snooping	<input checked="" type="checkbox"/>		

Short GI: Select this option to use the same short GI settings.

Link Integrity: Select this option to use the same link integrity settings.

Connection Limit: Select this option to use the same connection limit value.

IGMP Snooping:: Select this option to use the same IGMP snooping settings.

Multiple SSID & VLAN

SSID: Select this option to use the same multi-SSIDs.

SSID Visibility: Select this option to use the same SSID visible.

Security: Select this option to use the same wireless security settings.

WMM: Select this option to use the same WMM settings.

Captive Profile: Select this option to use the same captive profile settings.

VLAN: Select this option to use the same VLAN settings.

Multiple SSID & VLAN <input checked="" type="checkbox"/>			
SSID	<input checked="" type="checkbox"/>	SSID Visibility	<input checked="" type="checkbox"/>
Security	<input checked="" type="checkbox"/>	WMM	<input checked="" type="checkbox"/>
Captive Profile	<input checked="" type="checkbox"/>	VLAN	<input checked="" type="checkbox"/>

Advanced Functions

Schedule Settings: Select this option to use the same schedule settings.

QoS Settings: Select this option to use the same Quality of Service settings.

Log Settings: Select this option to use the same log settings.

Time and Date Settings: Select this option to use the same time and date settings.

Advanced Functions <input checked="" type="checkbox"/>			
Schedule Settings	<input checked="" type="checkbox"/>	QoS Settings	<input checked="" type="checkbox"/>
Log Settings	<input checked="" type="checkbox"/>	Time and Date Settings	<input checked="" type="checkbox"/>
ARP Spoofing Prevention	<input checked="" type="checkbox"/>	Bandwidth Optimization	<input checked="" type="checkbox"/>
Captive Portal	<input checked="" type="checkbox"/>	Auto RF	<input checked="" type="checkbox"/>
Load Balance	<input checked="" type="checkbox"/>	DHCP server Settings	<input checked="" type="checkbox"/>

ARP Spoofing Prevention: Select this option to use the same ARP spoofing prevention settings.

Bandwidth Optimization: Select this option to use the same bandwidth optimization settings.

Captive Portal: Select this option to use the same captive portal settings.

Auto RF: Select this option to use the same auto-RF settings.

Load Balance: Select this option to use the same load balancing settings.

DHCP Server Settings: Select this option to use the same DHCP server settings.

Administration Settings

System Name Settings: Select this option to use the same system name.

SNMP Settings: Select this option to use the same SNMP settings.

Login Settings: Select this option to use the same login settings.

Console Settings: Select this option to use the same console settings.

Limit Administrator: Select this option to use the same limit administrator settings.

Ping Control Setting: Select this option to use the same ping control settings.

Administration Settings <input checked="" type="checkbox"/>	
System Name Settings <input checked="" type="checkbox"/>	SNMP Settings <input checked="" type="checkbox"/>
Login Settings <input checked="" type="checkbox"/>	Console Settings <input checked="" type="checkbox"/>
Limit Administrator <input checked="" type="checkbox"/>	Ping Control Setting <input checked="" type="checkbox"/>

Auto-RF

In this windows, users can view and configure the automatic radio frequency settings as well as configure the the auto-initiate period and threshold values. Click the **Save** button to accept the changes made.

Enable: Auto-RF: Select to **Enable** or **Disable** the auto-RF feature here.

Initiate Auto-RF: Click the **Auto-RF Optimize** button to initiate the auto-RF optimization feature.

Auto-Initiate: Select the **Enable** or **Disable** the auto-initiate feature here.

Auto-Initiate Period: After enabling the auto-initiate option, the auto-initiate period value can be entered here. This value must be between 1 and 24 hours.

RSSI Threshold: Select the RSSI threshold value here. This value is listed in the drop-down menu in increments of 10% from **10%** to **100%**.

RF Report Frequency: Enter the RF report frequency value here.

The screenshot shows the 'Auto-RF' configuration window with the following settings:

- Enable Auto-RF: Disable (dropdown menu)
- Initiate Auto-RF: Auto-RF Optimize (button)
- Auto-Initiate: Disable (dropdown menu)
- Auto-Initiate Period: 24 (hours) (text input)
- RSSI Threshold: 40% (dropdown menu)
- RF Report Frequency: 10 (Seconds) (text input)

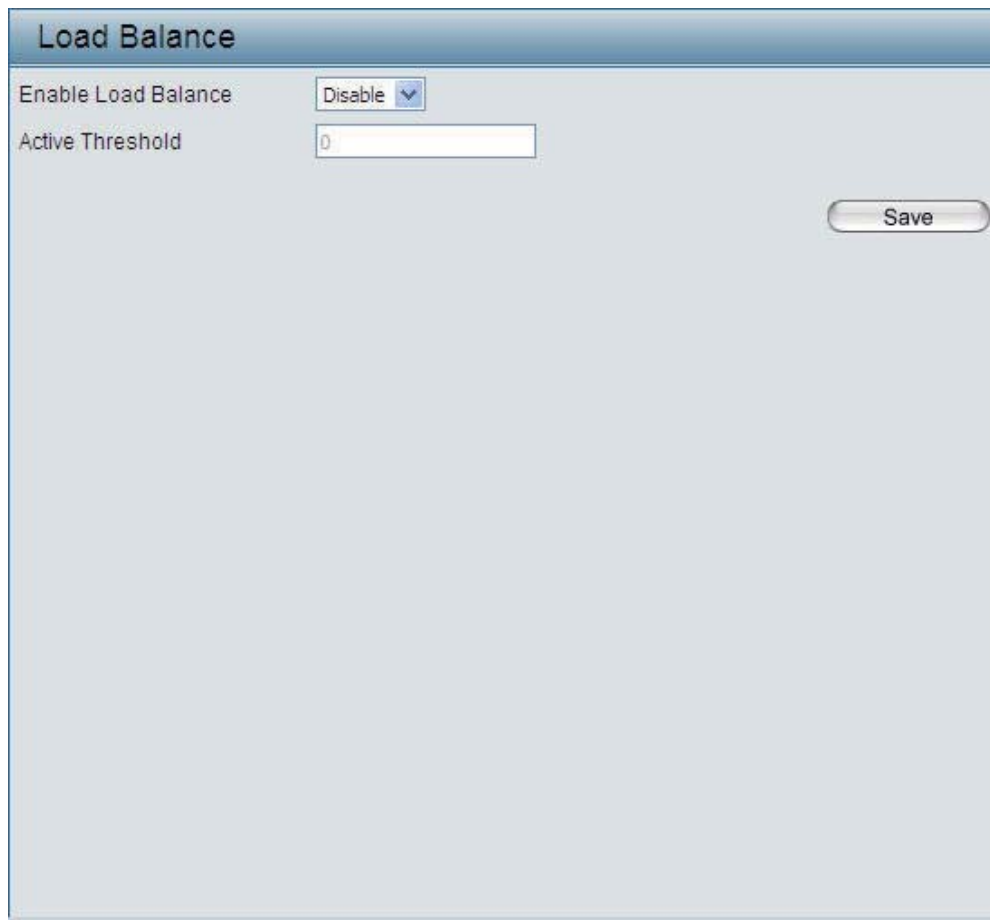
A 'Save' button is located at the bottom right of the window.

Load Balance

In this window, users can view and configure the AP array's load balancing settings. Click the Save button to accept the changes made.

Enable Load Balance: Select to **Enable** or **Disable** the load balance feature here.

Active Threshold: Enter the active threshold value here.



The screenshot shows a configuration window titled "Load Balance". It contains two main settings: "Enable Load Balance" with a dropdown menu currently set to "Disable", and "Active Threshold" with a text input field containing the value "0". A "Save" button is located in the bottom right corner of the window.

Captive Portal

Authentication Settings - Passcode

The Captive Portal is a built-in web authentication server. When a station connects to an AP, the web browser will be redirected to a web authentication page. In this windows, user can view and configure the Captive Portal settings. Click the **Add** button to add a new entry. Click the **Delete** or **Delete All** button to remove a specific entry or all the entries configured.

Encryption Type: Select the captive portal encryption type here. Options to choose from are **Passcode, User Name/Password, Remote RADIUS, LDAP** and **POP3**. In this section we'll discuss the **Passcode** option.

Passcode Quantity: Enter the number of Passcode that will be used here.

Duration: Enter the duration value, in hours, for this Passcode.

Last Active Day: Select the last active date for this Passcode here. **Year, Month** and **Day** selections can be made.

User Limit: Enter the maximum amount of users that can use this Passcode at the same time.

Captive Portal Authentication

Encryption Type:

Passcode Settings

Passcode Quantity:

Duration: Hours

Last Active Day: Year Month Day

User Limit:

Passcode	Duration	Last Active Day	User Limit	Delete

Captive Profile	Edit	Delete

Authentication Settings - User Name/Password

Encryption Type: Select the captive portal encryption type here. Options to choose from are **Passcode**, **User Name/Password**, **Remote RADIUS**, **LDAP** and **POP3**. In this section we'll discuss the **User Name/Password** option.

Restricted Subnets: Enter the restricted subnets here. Access to these subnets will be denied to guest accounts. Up to four restricted subnet entries can be defined.

Username: Enter the username for the new account here.

Password: Enter the password for the new account here.

Group: Select the group for the new account here. Options to choose from are **Manager** and **Guest**. Guest accounts will have limited access.

Captive Portal Authentication

Encryption Type Username/Password ▼

Username/Password Settings

IP Filter Settings

Restricted Subnets (example:192.168.0.0/16)

1. 2. 3. 4.

Username/Password Rule Settings

Username

Password

Group Manager ▼

Username	Group	Edit	Delete

Captive Profile	Edit	Delete

Authentication Settings - Remote RADIUS

- Encryption Type:** Select the captive portal encryption type here. Options to choose from are **Passcode, UserName/Password, Remote RADIUS, LDAP** and **POP3**. In this section we'll discuss the **Remote RADIUS** option.
- Remote RADIUS Type:** Select the remote RADIUS server type here. Currently, only **SPAP** will be used.
- RADIUS Server:** Enter the RADIUS server's IP address here.
- RADIUS Port:** Enter the RADIUS server's port number here.
- RADIUS Secret:** Enter the RADIUS server's shared secret here.
- Accounting Mode:** Select to **Enable** or **Disable** the accounting mode here.
- Accounting Server:** Enter the accounting server's IP address here.
- Accounting Port:** Enter the accounting server's port number here.
- Accounting Secret:** Enter the accounting server's shared secret here.

Captive Portal Authentication

Encryption Type: Remote RADIUS

Remote RADIUS Settings

Remote RADIUS Type: SPAP

Radius Server Settings

Radius Server: Radius Port: 1812

Radius Secret:

Accounting Server Settings

Accounting Mode: Disable

Accounting Server: Accounting Port: 1813

Accounting Secret:

Add

Captive Profile	Edit	Delete

Authentication Settings - LDAP

Encryption Type: Select the captive portal encryption type here. Options to choose from are **Passode, User Name/Password, Remote RADIUS, LDAP** and **POP3**. In this section we'll discuss the **LDAP** option.

Server: Enter the LDAP server's IP address or domain name here.

Port: Enter the LDAP server's port number here.

Authenticate Mode: Select the authentication mode here. Options to choose from are **Simple** and **TLS**.

Username: Enter the LDAP server account's username here.

Password: Enter the LDAP server account's password here.

Base DN: Enter the administrator's domain name here.

Account Attribute: Enter the LDAP account attribute string here. This string will be used to search for clients.

Identity: Enter the identity's full path string here. Alternatively, select the **Auto Copy** checkbox to automatically add the generic full path of the web page in the identity field.

Captive Portal Authentication

Encryption Type: LDAP

LDAP Settings

Server:

Port:

Authenticate Mode: Simple

Username:

Password:

Base DN: (ou=,dc=)

Account Attribute: (ex.cn)

Identity: Auto Copy

Captive Profile	Edit	Delete

Authentication Settings - POP3

Encryption Type: Select the captive portal encryption type here. Options to choose from are **Passcode, User Name/Password, Remote RADIUS, LDAP** and **POP3**. In this section we'll discuss the **Passcode** option.

Server: Enter the POP3 server's IP address or domain name here.

Port: Enter the POP server's port number here.

Connection Type: Select the connection type here. Options to choose from are **None** and **SSL/TLS**.

The screenshot shows a web-based configuration interface titled "Captive Portal Authentication". It features a form with the following fields:

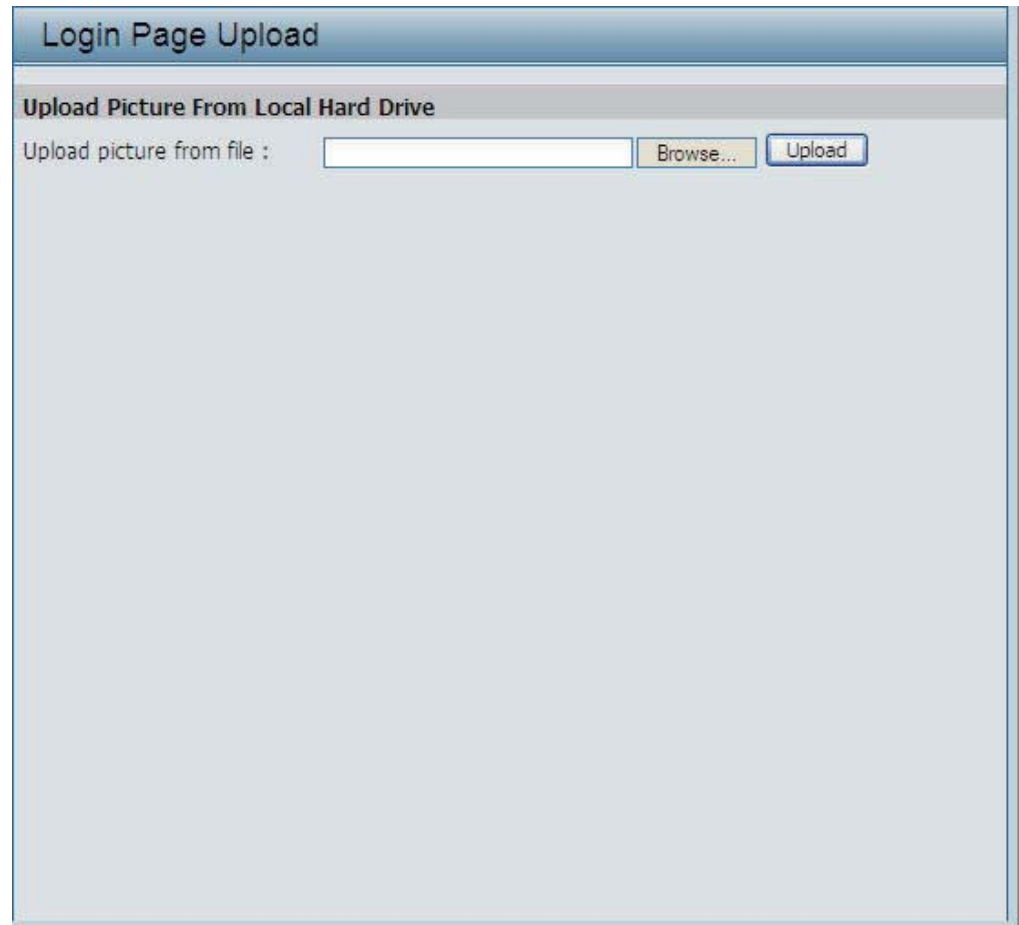
- Encryption Type:** A dropdown menu currently set to "POP3".
- POP3 Settings:** A sub-section containing:
 - Server:** An empty text input field.
 - Port:** A text input field containing the value "110".
 - Connection Type:** A dropdown menu currently set to "None".

Below the form is a table with a single header row containing "Captive Profile", "Edit", and "Delete" buttons. The table body is currently empty. An "Add" button is located to the right of the form.

Login Page Upload

In this window, users can upload a custom login page picture that will be used by the captive portal feature. Click the **Browse** button to navigate to the image file, located on the managing computer and then click the **Upload** button to initiate the upload.

Upload picture from file: In this field the path to the image file, that will be uploaded, will be displayed. Alternatively, the path can be manually entered here.



Web Redirection

In this windows, users can view and configure the Web redirection settings for the captive portal hosted by this access point. Wireless clients will be redirected to this web site prior and after authentication. Click the **Save** button to accept the changes made.

Web Redirection: Select this checkbox to enable the Web redirection feature.

Web Site: Enter the destination web site's address here.



The screenshot shows a configuration window titled "Web Redirection". It contains two main settings: "Web Redirection" with an unchecked checkbox, and "Web Site" with an empty text input field. A "Save" button is located in the bottom right corner of the window.

DHCP Server

Dynamic Pool Settings

The DHCP address pool defines the range of the IP address that can be assigned to stations in the network. A Dynamic Pool allows wireless stations to receive an available IP with lease time control. If needed or required in the network, the DAP-2553 is capable of acting as a DHCP server.

Function Enable/Disable:

Dynamic Host Configuration Protocol (DHCP) assigns dynamic IP addresses to devices on the network. This protocol simplifies network management and allows new wireless devices to receive IP addresses automatically without the need to manually assign new IP addresses. Select **Enable** to allow the DAP-2553 to function as a DHCP server.

IP Assigned From:

Input the first IP address available for assignment on your network.

The Range of Pool (1-254):

Enter the number of IP addresses available for assignment. IP addresses are increments of the IP address specified in the "IP Assigned From" field.

Subnet Mask:

All devices in the network must have the same subnet mask to communicate. Enter the submask for the network here.

Gateway:

Enter the IP address of the gateway on the network.

WINS:

Specify the Windows Internet Naming Service (WINS) server address for the wireless network. WINS is a system that determines the IP address of a network computer that has a dynamically assigned IP address.

The screenshot shows the D-Link DAP-2553 web interface. The top navigation bar includes Home, Maintenance, Configuration, System, Logout, and Help. The left sidebar shows a tree view of settings: DAP-2553, Basic Settings, Advanced Settings (Performance, Wireless Resource, Multi-SSID, VLAN, Intrusion, Schedule, Internal RADIUS Server, ARP Spoofing Prevention, Bandwidth Optimization), AP Array, Captive Portal, DHCP Server (Dynamic Pool Settings, Static Pool Settings, Current IP Mapping List), Filters, Traffic Control, and Status. The main content area is titled "Dynamic Pool Settings" and contains the following fields:

DHCP Server Control	
Function Enable/Disable	Disable
Dynamic Pool Settings	
IP Assigned From	192.168.0.20
The Range of Pool (1-254)	235
Subnet Mask	255.255.255.0
Gateway	
WINS	
DNS	
Domain Name	dlink-ap
Lease Time (60 - 31536000 sec)	604800

A "Save" button is located at the bottom right of the configuration area.

DNS: Enter the IP address of the Domain Name System (DNS) server. The DNS server translates domain names such as www.dlink.com into IP addresses.

Domain Name: Enter the domain name of the network, if applicable. (An example of a domain name is: www.dlink.com.)

**Lease Time
(60-31536000
sec):** The lease time is the period of time before the DHCP server will assign new IP addresses.

Static Pool Setting

The DHCP address pool defines the range of IP addresses that can be assigned to stations on the network. A static pool allows specific wireless stations to receive a fixed IP without time control.

Function Enable/Disable:

Dynamic Host Configuration Protocol (DHCP) assigns IP addresses to wireless devices on the network. This protocol simplifies network management and allows new wireless devices to receive IP addresses automatically without the need to manually assign IP addresses. Select **Enable** to allow the DAP-2553 to function as a DHCP server.

Assigned IP:

Use the Static Pool Settings to assign the same IP address to a device every time you start up. The IP addresses assigned in the Static Pool list must NOT be in the same IP range as the Dynamic Pool. After you have assigned a static IP address to a device via its MAC address, click **Save**; the device will appear in the Assigned Static Pool at the bottom of the screen. You can edit or delete the device in this list.

Assigned MAC Address:

Enter the MAC address of the device requesting association here.

Subnet Mask:

Define the submask of the IP address specified in the "IP Assigned From" field.

D-Link DAP-2553

Home Maintenance Configuration System Logout Help

DAP-2553

- Basic Settings
- Advanced Settings
 - Performance
 - Wireless Resource
 - Multi-SSID
 - VLAN
 - Intrusion
 - Schedule
 - Internal RADIUS Server
 - ARP Spoofing Prevention
 - Bandwidth Optimization
- AP Array
- Captive Portal
- DHCP Server
 - Dynamic Pool Settings
 - Static Pool Settings
 - Current IP Mapping List
- Filters
- Traffic Control
- Status

Static Pool Settings

DHCP Server Control

Function Enable/Disable: Disable

Static Pool Setting

Host Name:

Assigned IP:

Assigned MAC Address:

Subnet Mask: 255.255.255.0

Gateway:

WINS:

DNS:

Domain Name: dlink-ap

Save

Host Name	MAC Address	IP Address	Edit	Delete

- Gateway:** Specify the Gateway address for the wireless network.
- WINS:** Specify the Windows Internet Naming Service (WINS) server address for the wireless network. WINS is a system that determines the IP address of a network computer with a dynamically assigned IP address, if applicable.
- DNS:** Enter the Domain Name System (DNS) server address for the wireless network. The DNS server translates domain names such as `www.dlink.com` into IP addresses.
- Domain Name:** Specify the domain name for the network.

Current IP Mapping List

This window displays information about the current assigned DHCP dynamic and static IP address pools. This information is available when you enable DHCP server on the AP and assign dynamic and static IP address pools.

Current DHCP Dynamic Profile: These are IP address pools the DHCP server has assigned using the dynamic pool setting.

Host Name: The host name of a device on the network that is assigned an IP address from the DHCP dynamic pool.

Binding MAC Address: The MAC address of a device on the network that is assigned an IP address from the DHCP dynamic pool.

Assigned IP Address: The current corresponding DHCP-assigned IP address of the device.

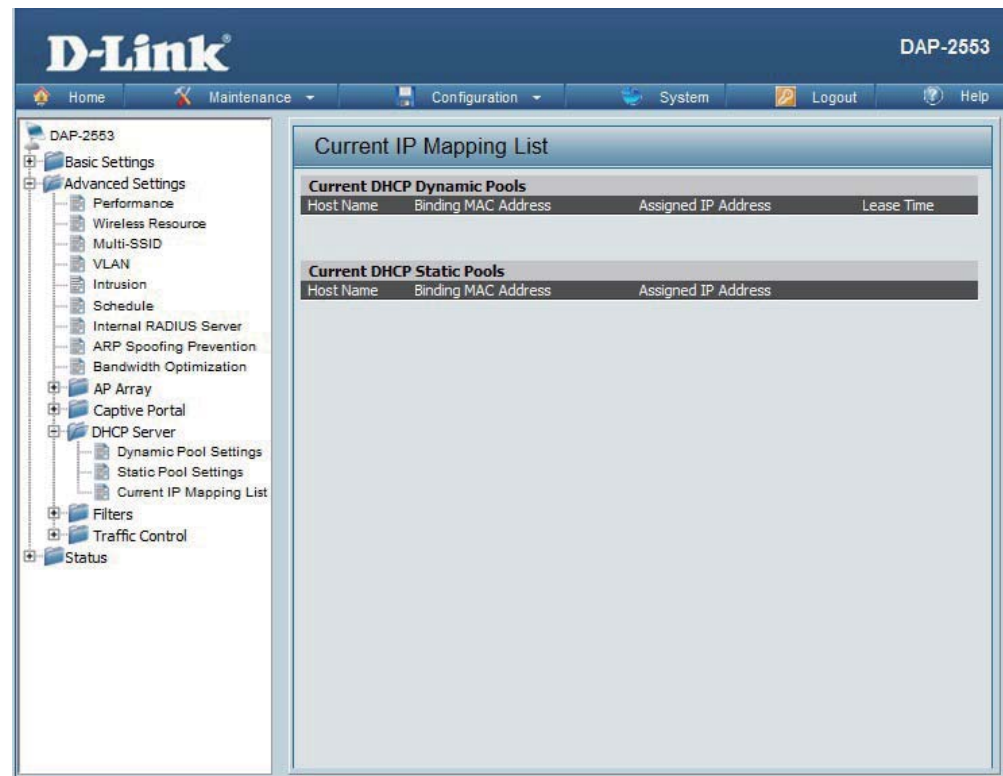
Lease Time: The length of time that the dynamic IP address will be valid.

Current DHCP Static Pools: These are the IP address pools of the DHCP server assigned through the static pool settings.

Host Name: The host name of a device on the network that is assigned an IP address from the DHCP dynamic pool.

Binding MAC Address: The MAC address of a device on the network that is within the DHCP static IP address pool.

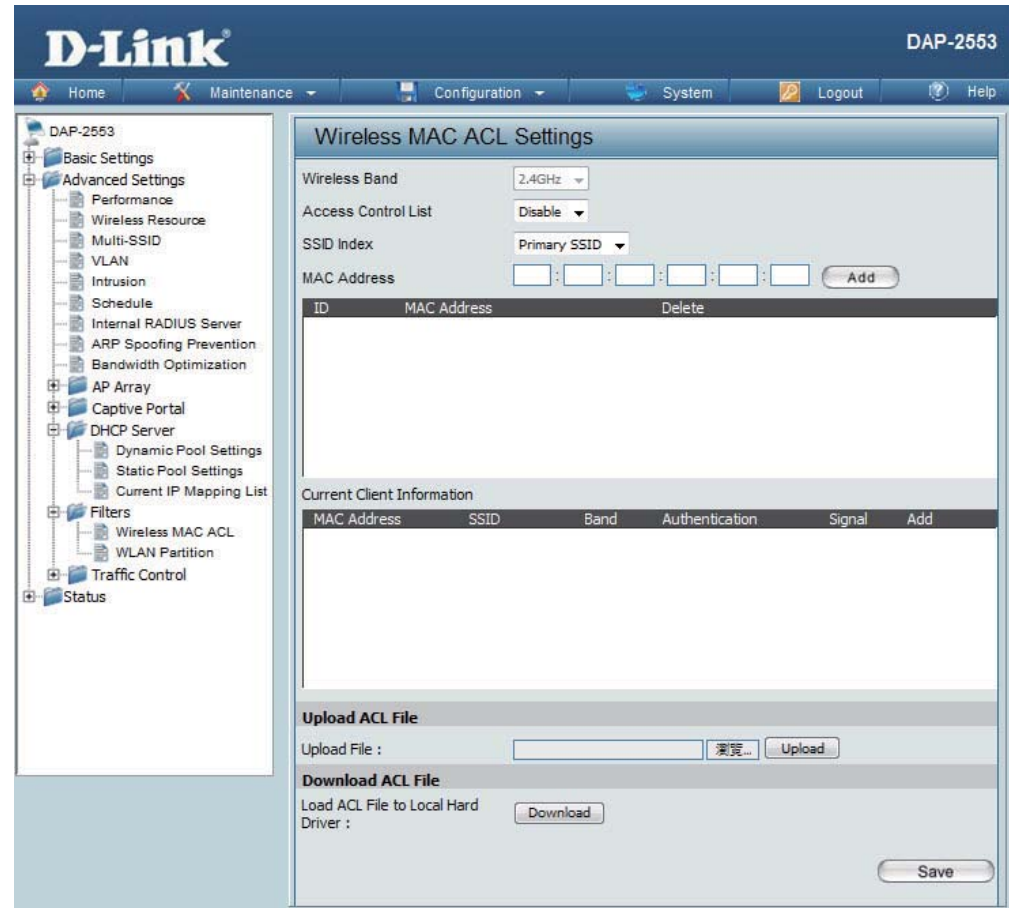
Assigned IP Address: The current corresponding DHCP-assigned static IP address of the device.



Filters

Wireless MAC ACL

- Wireless Band:** Displays the current wireless band rate.
- Access Control List:** Select **Disable** to disable the filters function.
- SSID Index :** Select the SSID for Wireless MAC ACL .
- MAC Address:** Select **Accept** to accept only those devices with MAC addresses in the Access Control List. All other devices not on the list will be rejected.
- Select **Reject** to reject the devices with MAC addresses on the Access Control List. All other devices not on the list will be accepted.
- Enter each MAC address that you wish to include in your filter list, and click **Save**.
- MAC Address List:** When you enter a MAC address, it appears in this list. Highlight a MAC address and click **Delete** to remove it from this list.
- Upload ACL File:** You may create an ACL list and upload it to the access point instead of manually entering the information. Once created, click the **Browse** button and locate your file. Select it and then click **Upload**.
- Download ACL File:** Click **Download** to export the ACL to a file on your computer.



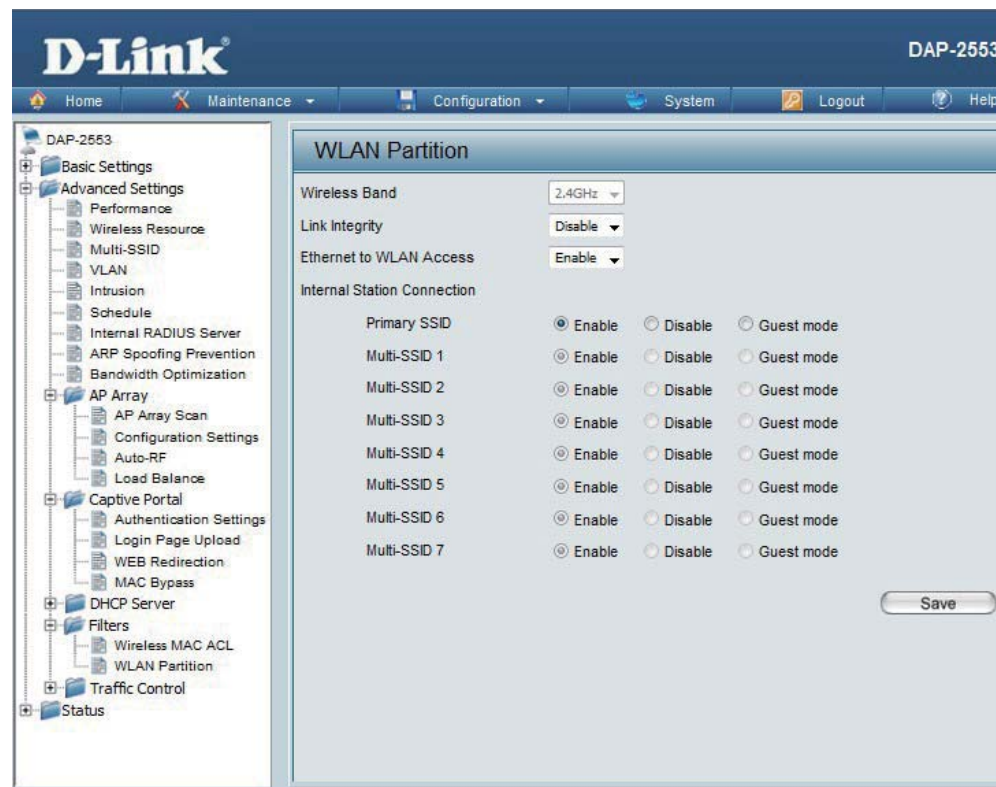
WLAN Partition

Wireless Band: Displays the current wireless band rate.

Link Integrity: Select **Enable** or **Disable**.

Ethernet to WLAN Access: The default is **Enable**. When disabled, all data from the Ethernet to associated wireless devices will be blocked. Wireless devices can still send data to the Ethernet.

Internal Station Connection: The default value is **Enable**, which allows stations to intercommunicate by connecting to a target AP. When disabled, wireless stations cannot exchange data on the same Multi-SSID. In Guest mode, wireless stations cannot exchange data with any station on your network



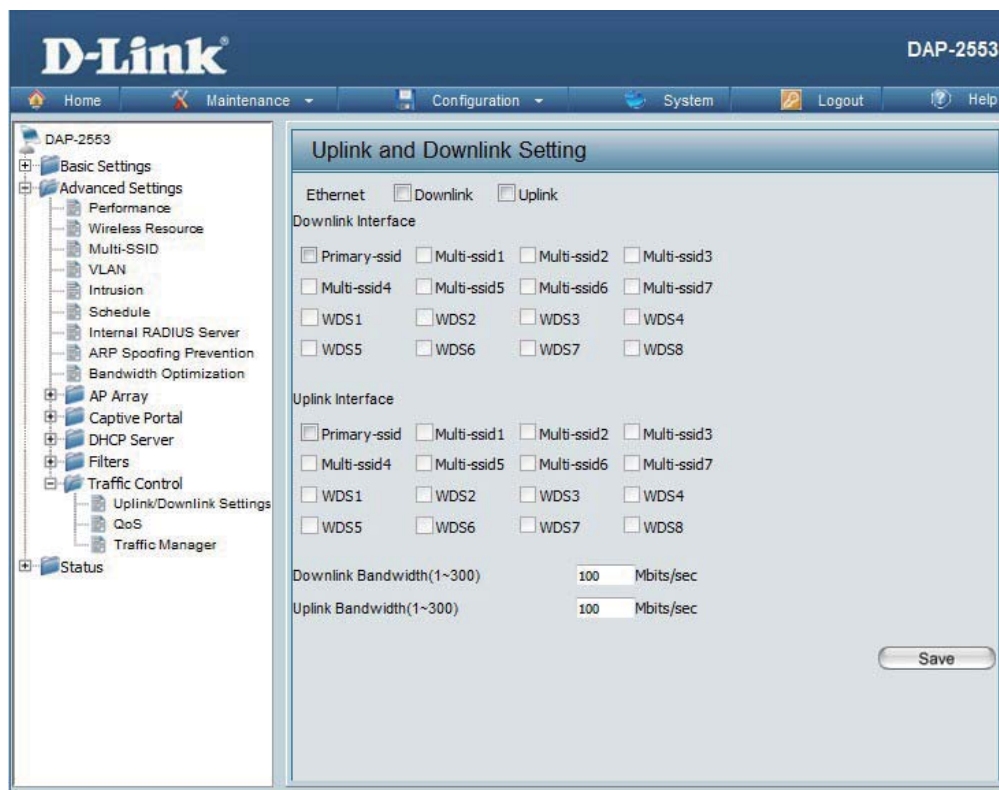
Traffic Control

Uplink/Downlink Setting

The uplink/downlink setting allows users to customize the downlink and uplink interfaces including specifying downlink/uplink bandwidth rates in Mbits per second. These values are also used in the QoS and Traffic Manager windows. Once the desired uplink and downlink settings are finished, click the Save button to let your changes take effect.

Downlink Bandwidth: The downlink bandwidth in Mbits per second.

Uplink Bandwidth: Uplink Bandwidth: The uplink bandwidth in Mbits per second.



QoS

Quality of Service (QoS) enhances the experience of using a network by prioritizing the traffic of different applications. The DAP-2553 supports four priority levels. Once the desired QoS settings are finished, click the Save button to let your changes take effect.

Enable QoS: Check this box to allow QoS to prioritize traffic. Use the drop-down menus to select the four levels of priority. Click the Save button when you are finished.

Downlink Bandwidth: Downlink Bandwidth: The downlink bandwidth in Mbits per second. This value is entered in the Uplink/Downlink Setting window.

Uplink Bandwidth: Uplink Bandwidth: The uplink bandwidth in Mbits per second. This value is entered in the Uplink/Downlink Setting window.

The screenshot shows the 'QoS' configuration window. At the top, there is a section 'QoS' with an 'Enable QoS' checkbox that is currently unchecked. Below this is the 'Advanced QoS' section, which contains several rows of settings:

- Downlink Bandwidth:** A text input field containing '100' followed by 'Mbits/sec'.
- Uplink Bandwidth:** A text input field containing '100' followed by 'Mbits/sec'.
- ACK/DHCP/ICMP/DNS Priority:** A dropdown menu set to 'Highest Priority', a 'Limit' field set to '100', and a '% Port' field containing '53,67,68,546,547'.
- Web Traffic Priority:** A dropdown menu set to 'Third Priority', a 'Limit' field set to '100', and a '% Port' field containing '80,443,3128,8080'.
- Mail Traffic Priority:** A dropdown menu set to 'Second Priority', a 'Limit' field set to '100', and a '% Port' field containing '25,110,465,995'.
- Ftp Traffic Priority:** A dropdown menu set to 'Low Priority', a 'Limit' field set to '100', and a '% Port' field containing '20,21'.
- User Defined-1 Priority:** A dropdown menu set to 'Highest Priority', a 'Limit' field set to '100', and a '% Port' field containing '0 - 0'.
- User Defined-2 Priority:** A dropdown menu set to 'Second Priority', a 'Limit' field set to '100', and a '% Port' field containing '0 - 0'.
- User Defined-3 Priority:** A dropdown menu set to 'Third Priority', a 'Limit' field set to '100', and a '% Port' field containing '0 - 0'.
- User Defined-4 Priority:** A dropdown menu set to 'Low Priority', a 'Limit' field set to '100', and a '% Port' field containing '0 - 0'.
- Other Traffic Priority:** A dropdown menu set to 'Low Priority', a 'Limit' field set to '100', and a '% Port' field containing '% '.

At the bottom right of the window, there is a 'Save' button.

Traffic Manager

The traffic manager feature allows users to create traffic management rules that specify how to deal with listed client traffic and specify downlink/ uplink speed for new traffic manager rules. Click the Save button to let your changes take effect.

- Traffic Manager:** Use the drop-down menu to Enable the traffic manager feature.
- Unlisted Client Traffic:** Select Deny or Forward to determine how to deal with unlisted client traffic.
- Downlink Bandwidth:** The downlink bandwidth in Mbits per second. This value is entered in the Uplink/Downlink Setting window.
- Uplink Bandwidth:** Uplink Bandwidth: The uplink bandwidth in Mbits per second. This value is entered in the Uplink/Downlink Setting window.

Traffic Manager

Traffic Manager Disable ▾

Unlisted Clients Traffic Deny Forward

Downlink Bandwidth Mbits/sec

Uplink Bandwidth Mbits/sec

Add Traffic Manager Rule

Name

Client IP(optional)

Client MAC(optional)

Downlink Speed Mbits/sec

Uplink Speed Mbits/sec

Traffic Manager Rules

Name	Client IP	Client MAC	Downlink Speed	Uplink Speed	Edit Del

Status

Device Information

Device Information: This read-only window displays the configuration settings of the DAP-2553, including the firmware version and the device's MAC address.



Client Information

Client Information: This window displays the wireless client information for clients currently connected to the DAP-2553.

The following information is available for each client communicating with the DAP-2553.

SSID: Displays the SSID of the client.

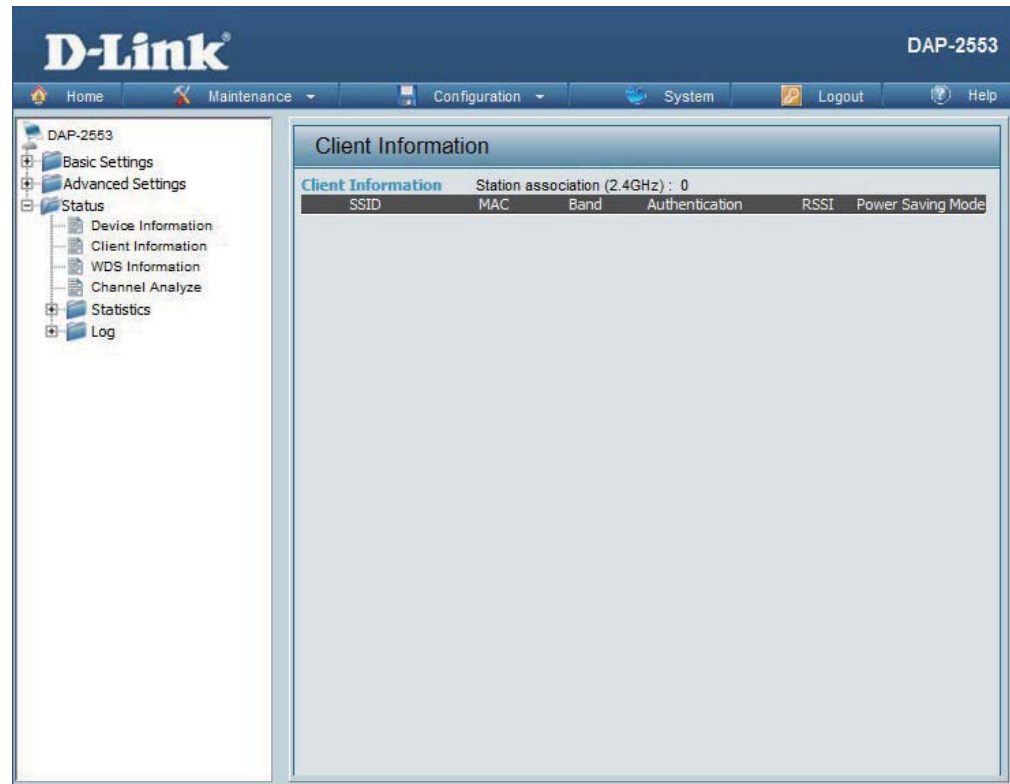
MAC: Displays the MAC address of the client.

Band: Displays the wireless band that the client is connected to.

Authentication: Displays the type of authentication being used.

RSSI: Displays the client's signal strength (received signal strength indicator).

Power Saving Mode: Displays the status of the power saving feature.



WDS Information

WDS Information: This window displays the Wireless Distribution System information for clients currently connected to the DAP-2553.

The following information is available for each client communicating with the DAP-2553.

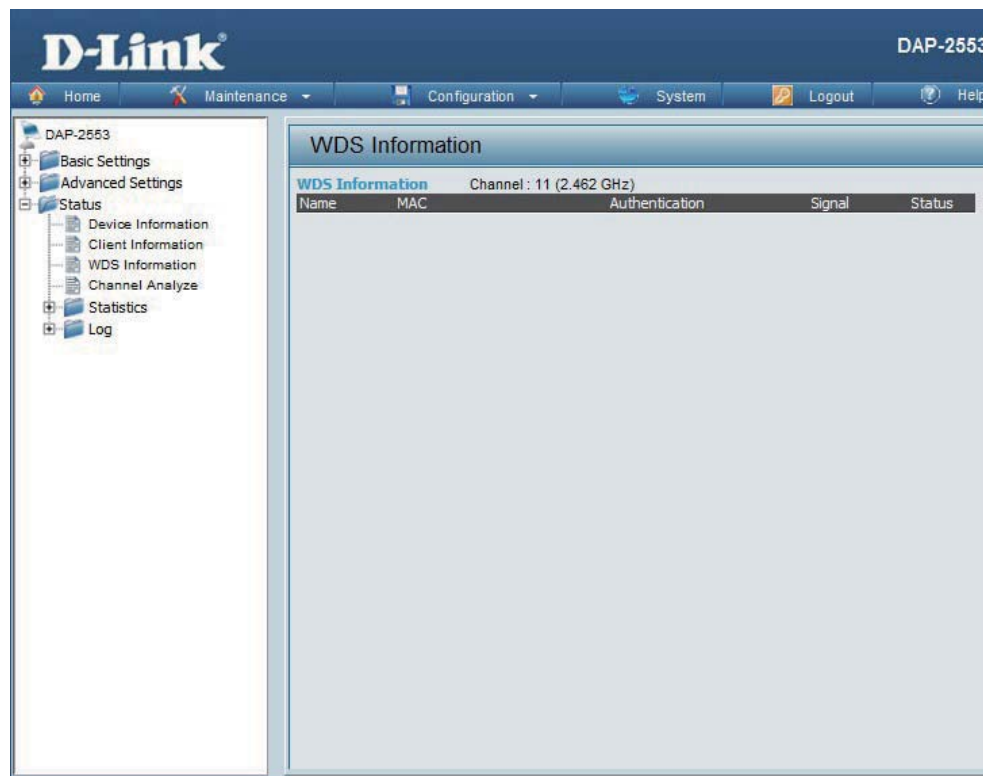
Name: Displays the SSID of the client.

MAC: Displays the MAC address of the client.

Authentication: Displays the type of authentication being used.

Signal: Displays the client's signal strength.

Status: Displays the status of the power saving feature.

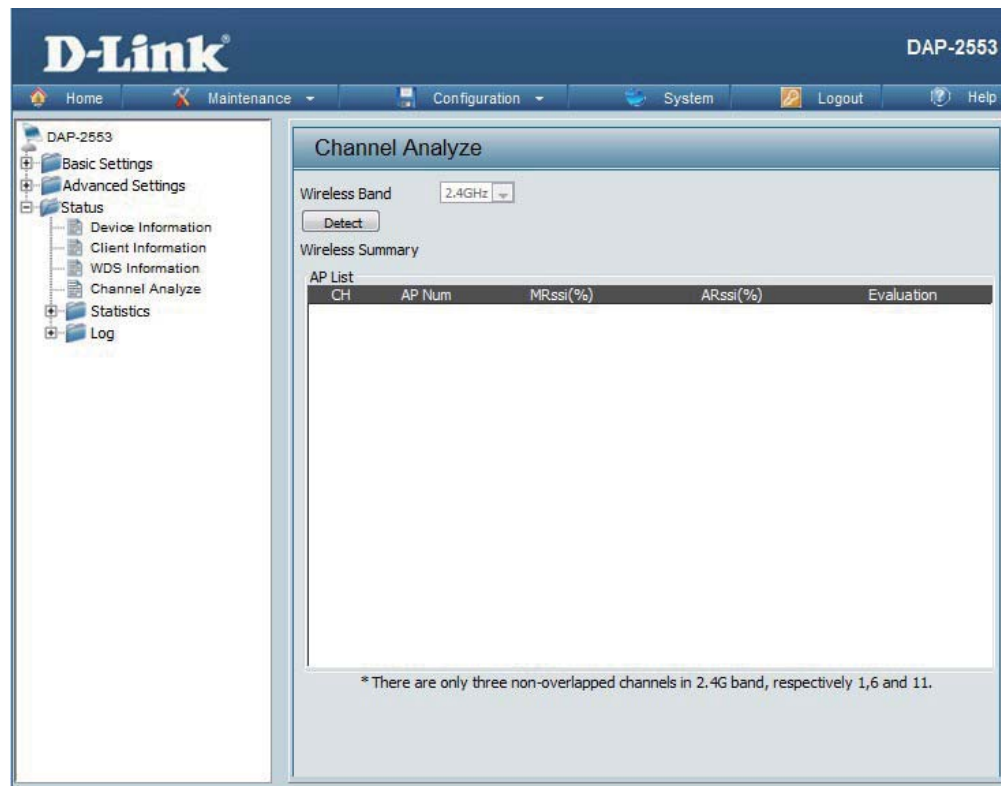


Channel Analyze

Wireless Band: Select 2.4GHz in default.

Detect: Click the Detect button to scan.

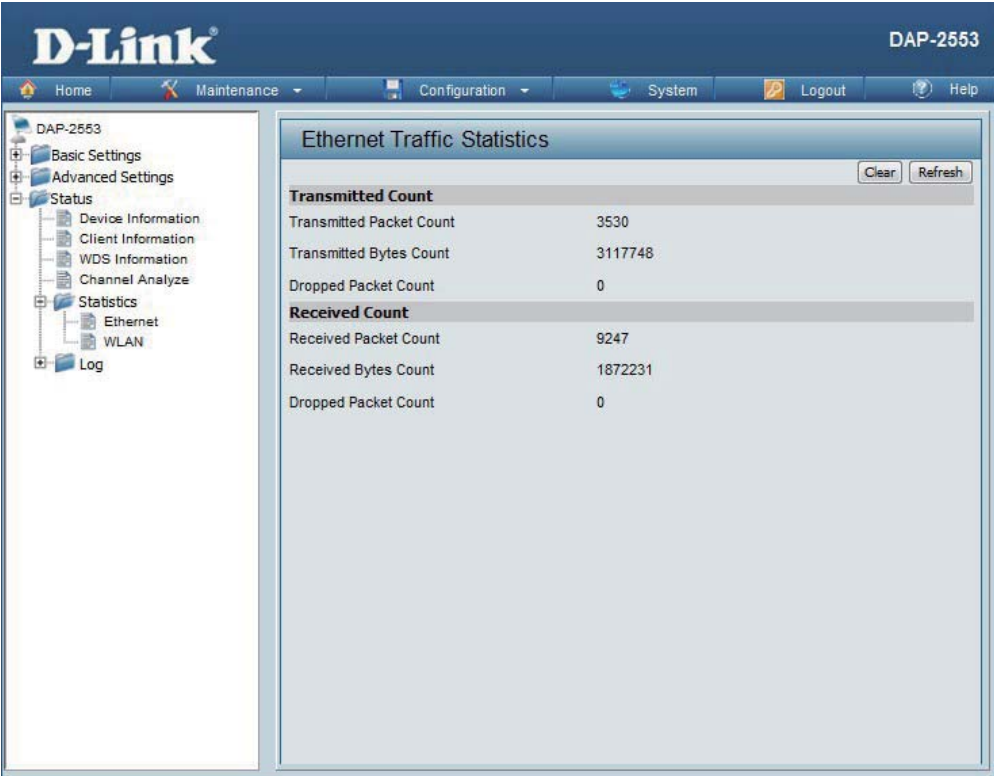
AP List: This will list the transmitting channels and quality.



Stats Ethernet

Ethernet Traffic Statistics:

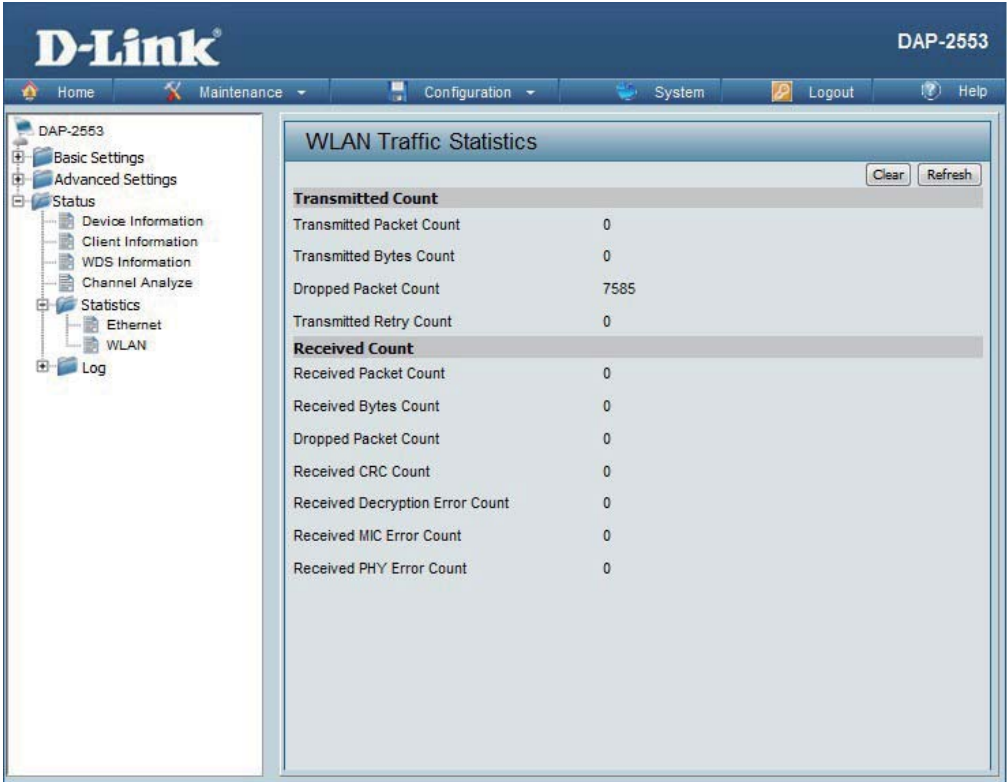
This page displays transmitted and received count statistics for packets and bytes.



WLAN Traffic

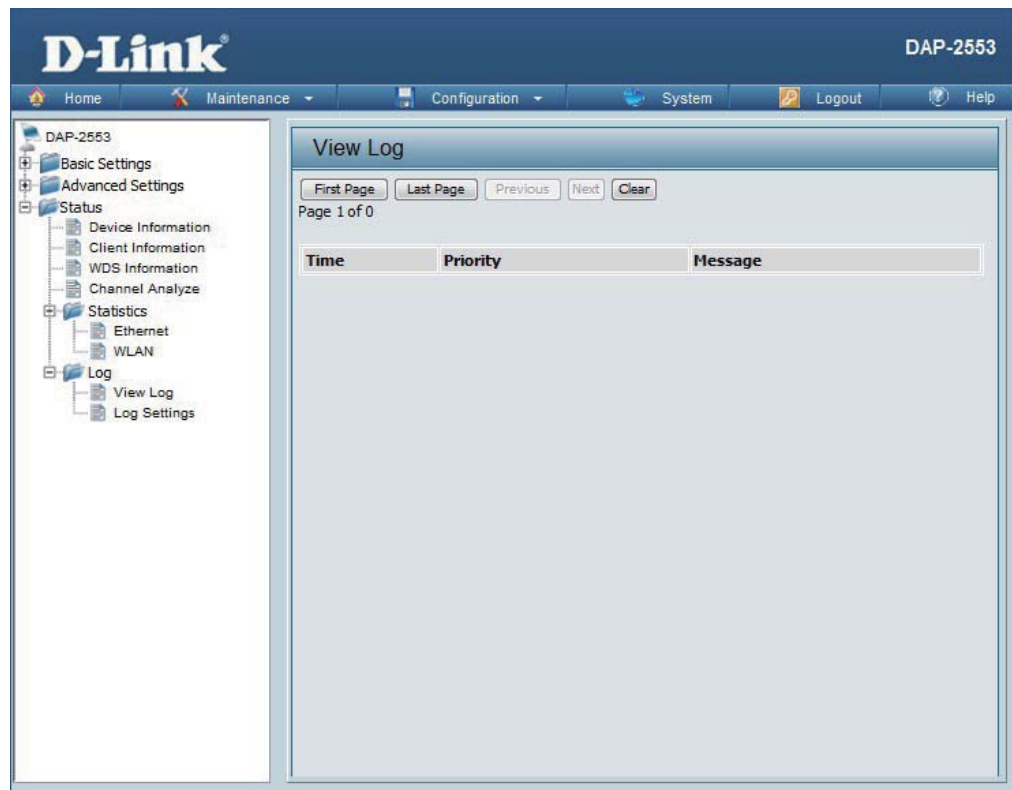
WLAN Traffic Statistics:

This page displays wireless network statistics for data throughput, transmitted and received frames, and frame errors.



Log View Log

View Log: The AP's embedded memory displays system and network messages including a time stamp and message type. The log information includes but is not limited to the following items: cold start AP, upgrading firmware, client associate and disassociate with AP, and web login. The web page holds up to 500 logs.



Log Settings

- Log Server/IP Address:** Enter the IP address of the server you would like to send the DAP-2553 log to.
- Log Type:** Check the box for the type of activity you want to log. There are three types: System Activity, Wireless Activity, and Notice.
- Email Notification:** Check to enable Email notification.
- Outgoing Mail Server (SMTP):** Select the SMTP server from the drop-down menu.
- Authentication:** Check to enable authentication.
- SSL / TLS:** Check to enable SSL/TLS authentication.
- From Email Address:** Enter the "From" email address.
- To Email Address:** Enter the destination email address.
- Email Server Address:** Enter the Email Server Address.
- SMTP Port:** Enter the SMTP port.
- Username:** Enter your email username.
- Password:** Enter your email password.
- Confirm Password:** Enter your email password again.
- Schedule:** Select when to send the log to your email (in hours). You will receive an email when the log is full too.

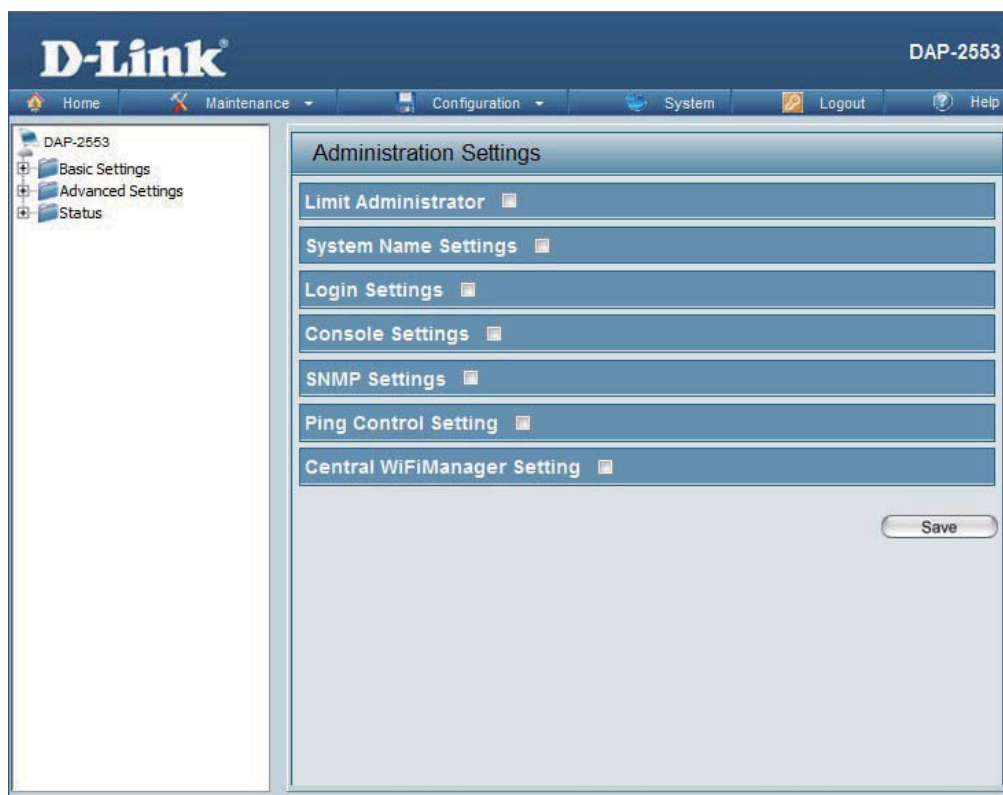
The screenshot shows the D-Link DAP-2553 web interface. The top navigation bar includes Home, Maintenance, Configuration, System, Logout, and Help. The left sidebar shows a tree view with categories like Basic Settings, Advanced Settings, Status, Device Information, Client Information, WDS Information, Channel Analyze, Statistics, Log, View Log, and Log Settings. The main content area is titled 'Log Settings' and contains the following configuration options:

- Log Settings:**
 - Log Server / IP Address: [Text Input]
 - Log Type:
 - System Activity
 - Wireless Activity
 - Notice
- Email Notification:**
 - Email Notification: Enable
 - Outgoing mail server (SMTP): [Internal] (Dropdown)
 - Authentication: Enable
 - SSL/TLS: Enable
 - From Email Address: [Text Input]
 - To Email Address: [Text Input]
 - Email Server Address: [Text Input]
 - SMTP Port: [Text Input]
 - User Name: [Text Input]
 - Password: [Text Input]
 - Confirm Password: [Text Input]
- Email Log Schedule:**
 - Schedule: [0] (Dropdown) hours or when Log is full

A 'Save' button is located at the bottom right of the configuration area.

Maintenance Administration Settings

Check one or more of the seven main categories to display the various hidden administrator parameters and settings displayed on the next seven pages.



Limit Administrator

Each of the seven main categories display various hidden administrator parameters and settings.

Limit Administrator VLAN ID: Check the box provided and enter the specific VLAN ID that the administrator will be allowed to log in from.

Limit Administrator IP: Check to enable the Limit Administrator IP address.

IP Range: Enter the IP address range that the administrator will be allowed to log in from and then click the **Add** button.

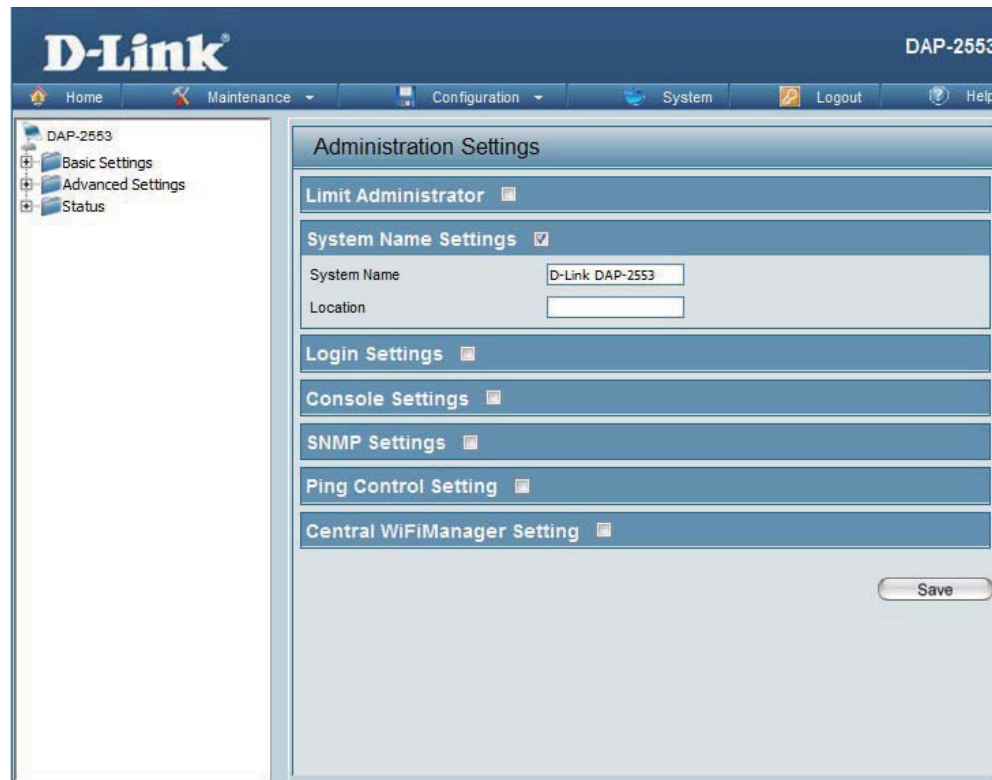
The screenshot shows the D-Link DAP-2553 web interface. The top navigation bar includes Home, Maintenance, Configuration, System, Logout, and Help. The left sidebar shows a tree view with DAP-2553, Basic Settings, Advanced Settings, and Status. The main content area is titled "Administration Settings" and contains the "Limit Administrator" section. This section has a checked checkbox for "Limit Administrator". Below it are three fields: "Limit Administrator VLAN ID" with an "Enable" checkbox and a text input field containing "1"; "Limit Administrator IP" with an "Enable" checkbox; and "IP Range" with "From:" and "To:" text input fields and an "Add" button. Below these fields is a table with columns "Item", "From", "To", and "Delete". The table is currently empty. At the bottom of the page, there is a "Save" button.

System Name Settings

Each of the seven main categories display various hidden administrator parameters and settings.

System Name: The name of the device. The default name is **D-Link DAP-2553**.

Location: The physical location of the device, e.g. 72nd Floor, D-Link HQ.



Login Settings

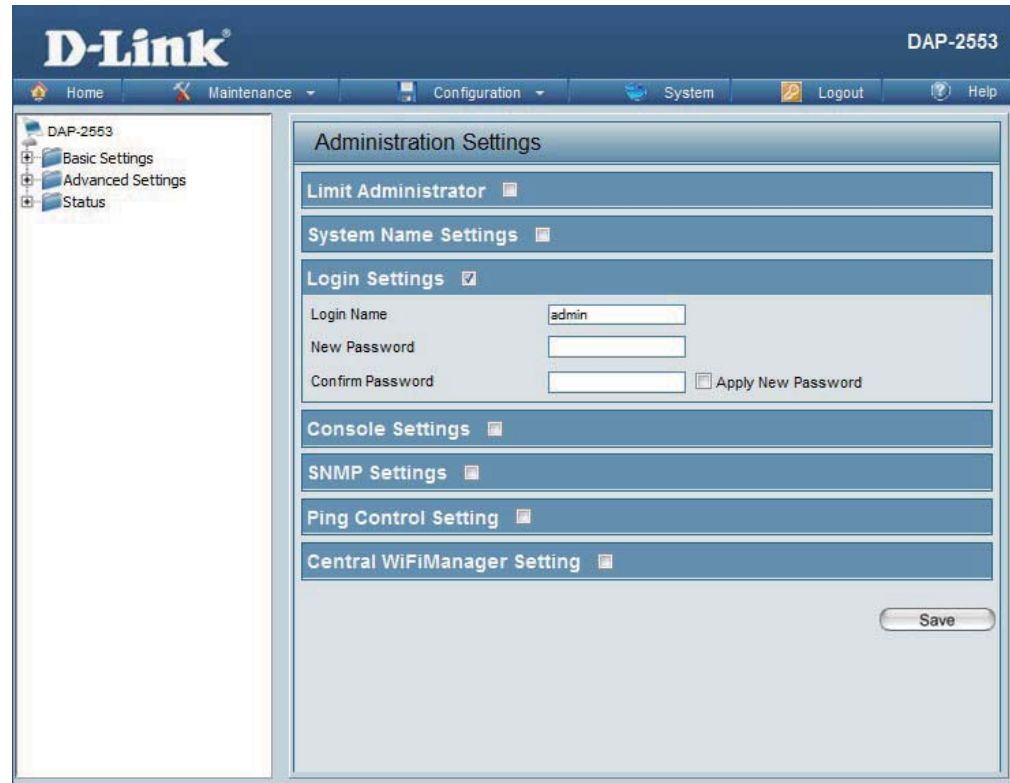
Each of the seven main categories display various hidden administrator parameters and settings.

Login Name: Enter a user name. The default is **admin**.

New Password: When changing your password, enter the new password here. The password is case-sensitive. "A" is a different character than "a." The length should be between 0 and 12 characters.

Confirm Password: Enter the new password a second time for confirmation purposes.

Apply New Password : Click the box to confirm apply new password again



The screenshot displays the D-Link DAP-2553 web interface. The top navigation bar includes 'Home', 'Maintenance', 'Configuration', 'System', 'Logout', and 'Help'. The left sidebar shows a tree view with 'DAP-2553', 'Basic Settings', 'Advanced Settings', and 'Status'. The main content area is titled 'Administration Settings' and contains several expandable sections: 'Limit Administrator', 'System Name Settings', 'Login Settings' (which is expanded), 'Console Settings', 'SNMP Settings', 'Ping Control Setting', and 'Central WiFiManager Setting'. The 'Login Settings' section includes three input fields: 'Login Name' (containing 'admin'), 'New Password', and 'Confirm Password'. There is also a checkbox labeled 'Apply New Password'.

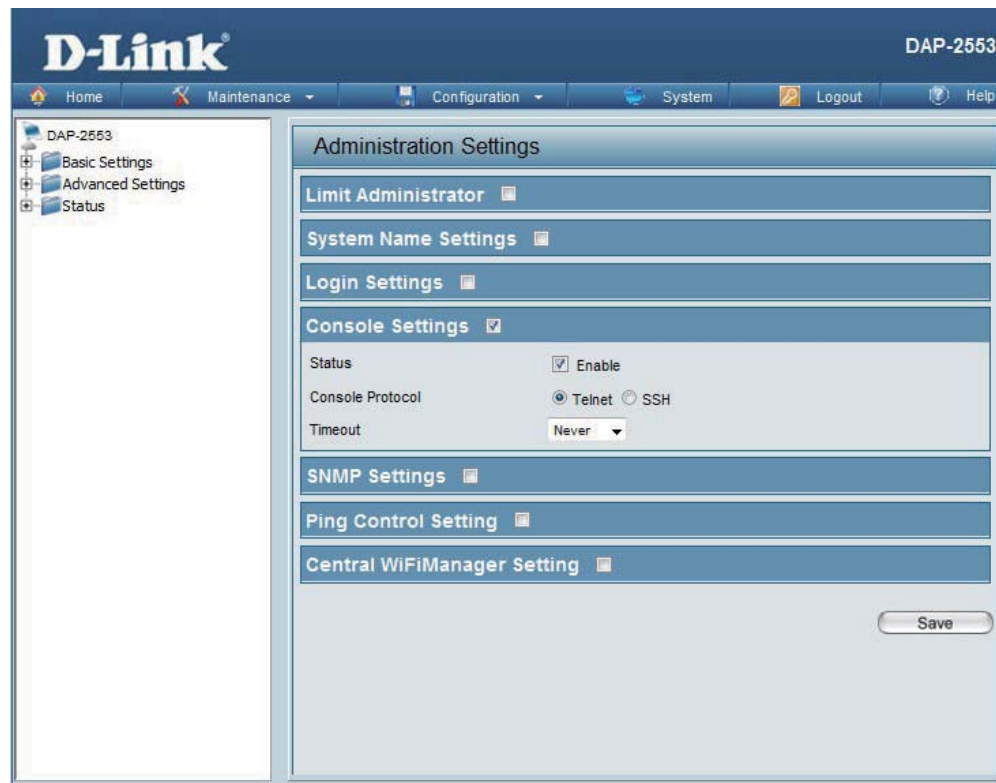
Console Settings

Each of the seven main categories display various hidden administrator parameters and settings.

Status: Status is enabled by default. Uncheck the box to disable the console.

Console Protocol: Select the type of protocol you would like to use, **Telnet** or **SSH**.

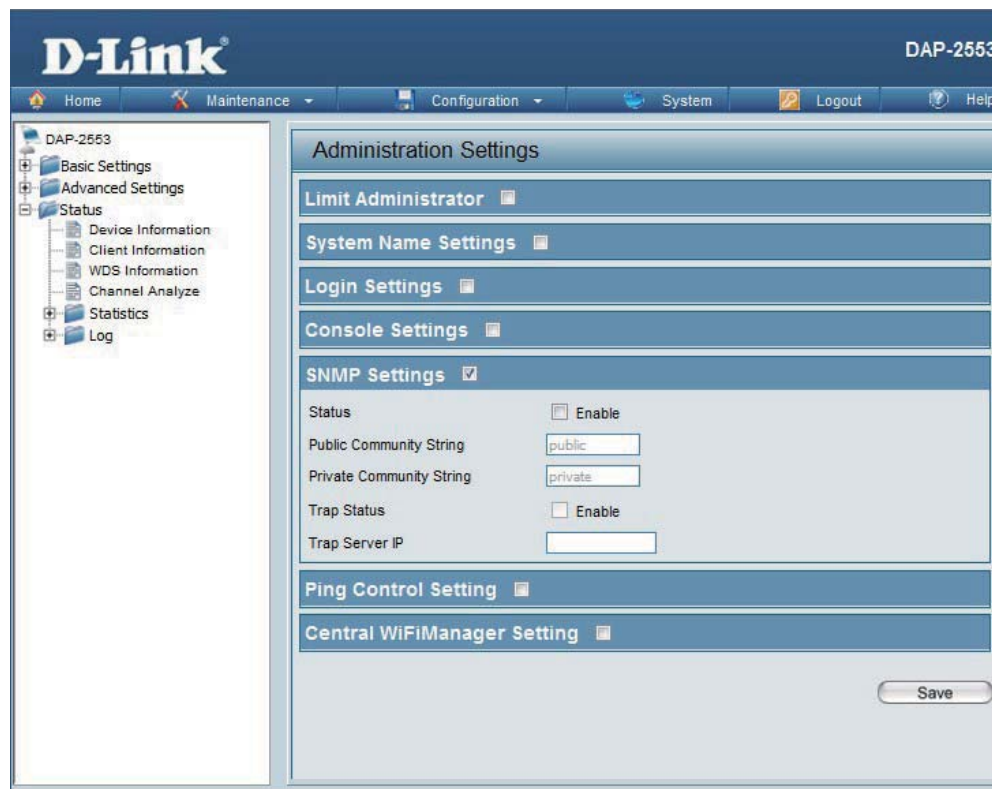
Timeout: Set to **1 Min**, **3 Mins**, **5 Mins**, **10 Mins**, **15 Mins** or **Never**.



SNMP Settings

Each of the seven main categories display various hidden administrator parameters and settings.

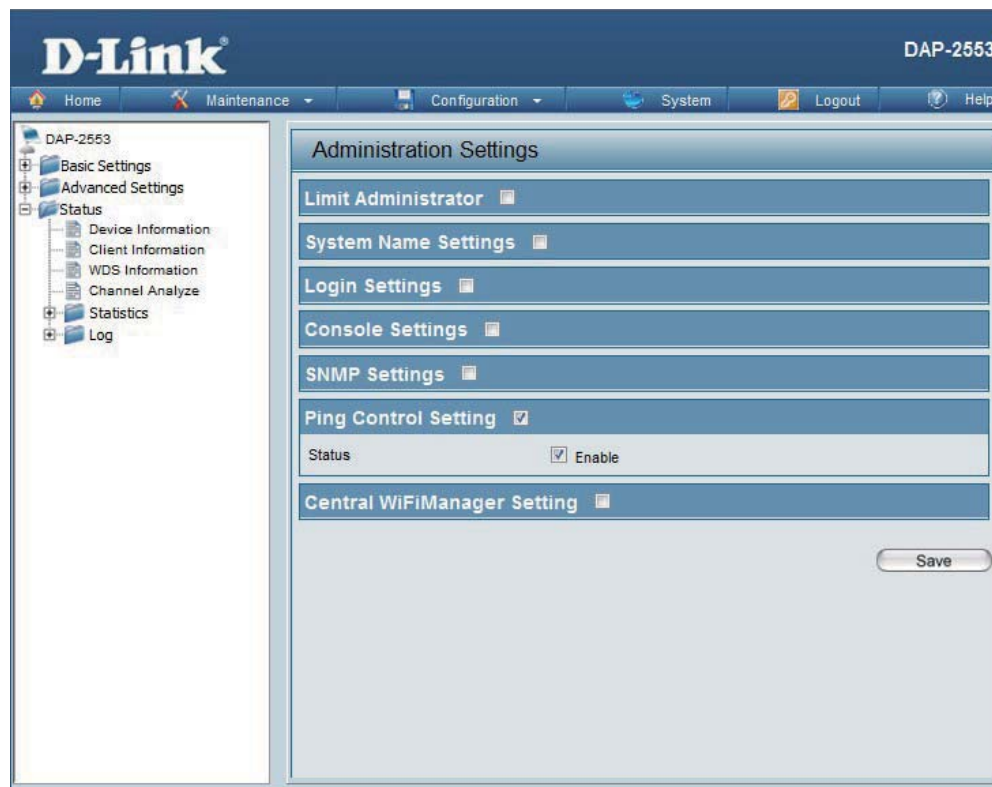
- Status:** Check the box to enable the SNMP functions. This option is disabled by default.
- Public Community String:** Enter the public SNMP community string.
- Private Community String:** Enter the private SNMP community string.
- Trap Status:** Check the box to enable Trap Status.
- Trap Server IP:** Enter the Trap Server IP address.



Ping Control Setting

Each of the seven main categories display various hidden administrator parameters and settings.

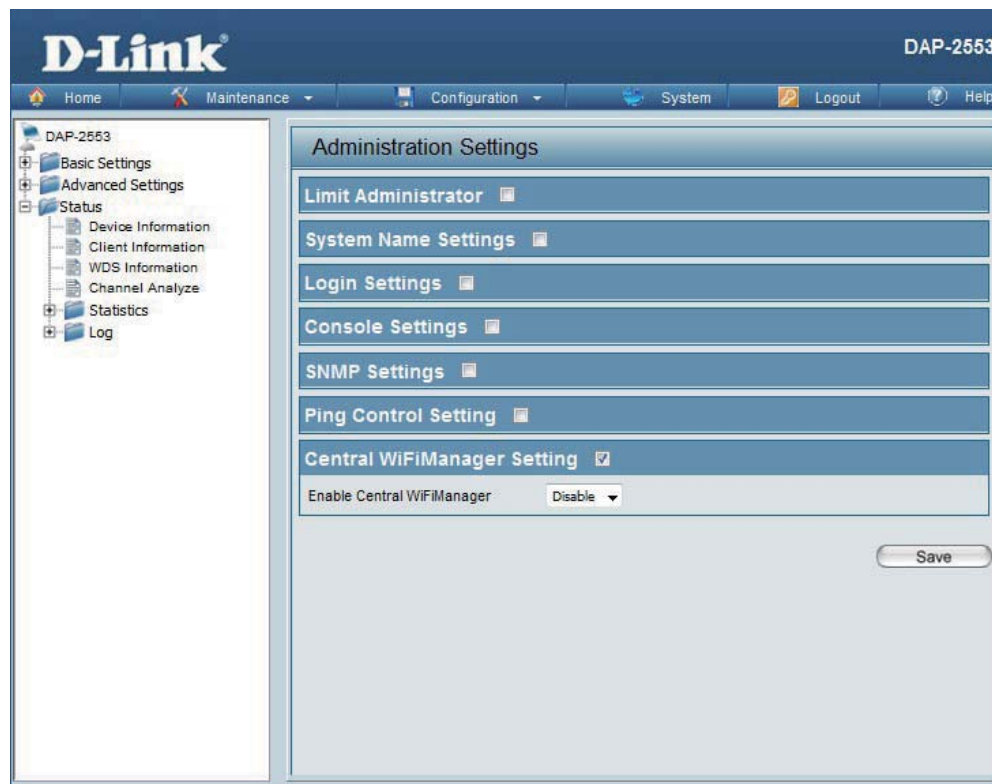
Status: Check the box to enable Ping control. Ping works by sending ICMP “echo request” packets to the target host and listening for ICMP echo response replies. The default is enabled.



Ping Control Setting

Each of the seven main categories display various hidden administrator parameters and settings.

Enable Central WiFiManager : Select to enable or disable the Central WiFiManager.



Firmware and SSL Certification Upload

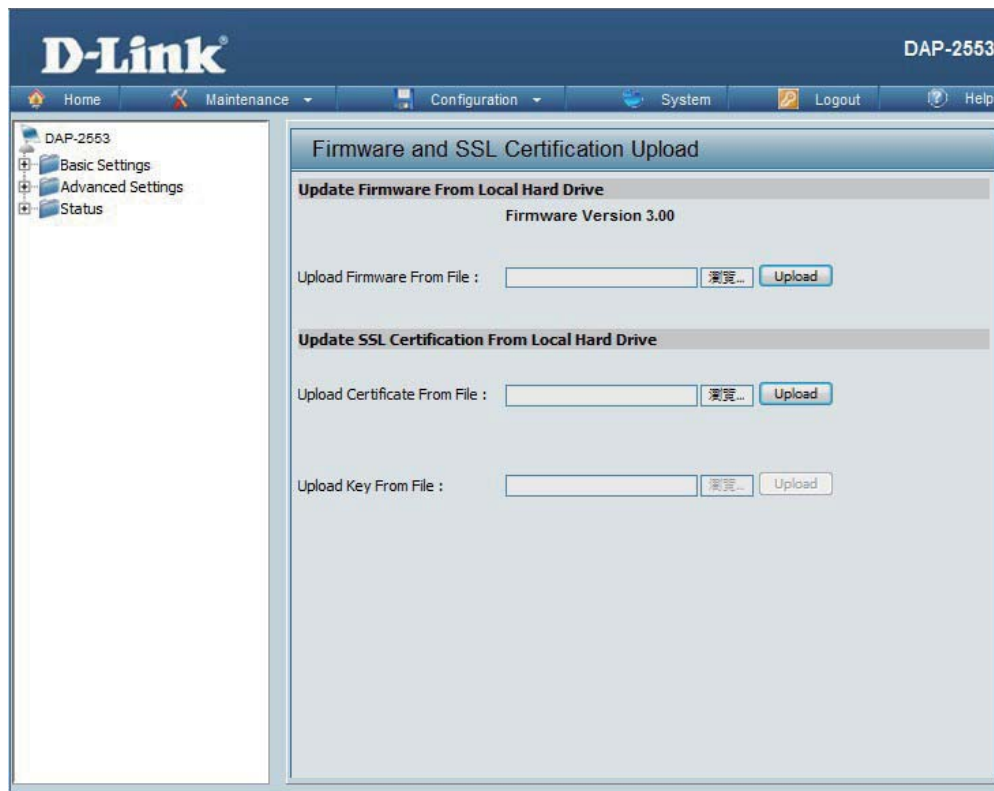
This page allows the user to perform a firmware upgrade. A Firmware upgrade is a function that upgrade the running software used by the access point. This is a useful feature that prevents future bugs and allows for new features to be added to this product. Please go to your local D-Link website to see if there is a newer version firmware available.

Upload Firmware From Local Hard Drive:

The current firmware version is displayed above the file location field. After downloading the most recent version of firmware for the DAP-2553 from <http://support.dlink.com> to your local computer, use the **Browse** button to locate the firmware file on your computer. Click **Upload** to update the firmware version. Please don't turn the power off while upgrading.

Upload SSL Certification From Local Hard Drive:

Click **Browse** to locate the SSL Certification file on your local computer. After selecting and opening the file, click **Upload** to upload the file to the DAP-2553.



The screenshot displays the D-Link web interface for the DAP-2553. The main heading is "Firmware and SSL Certification Upload". Below this, there are three sections for uploading files from a local hard drive:

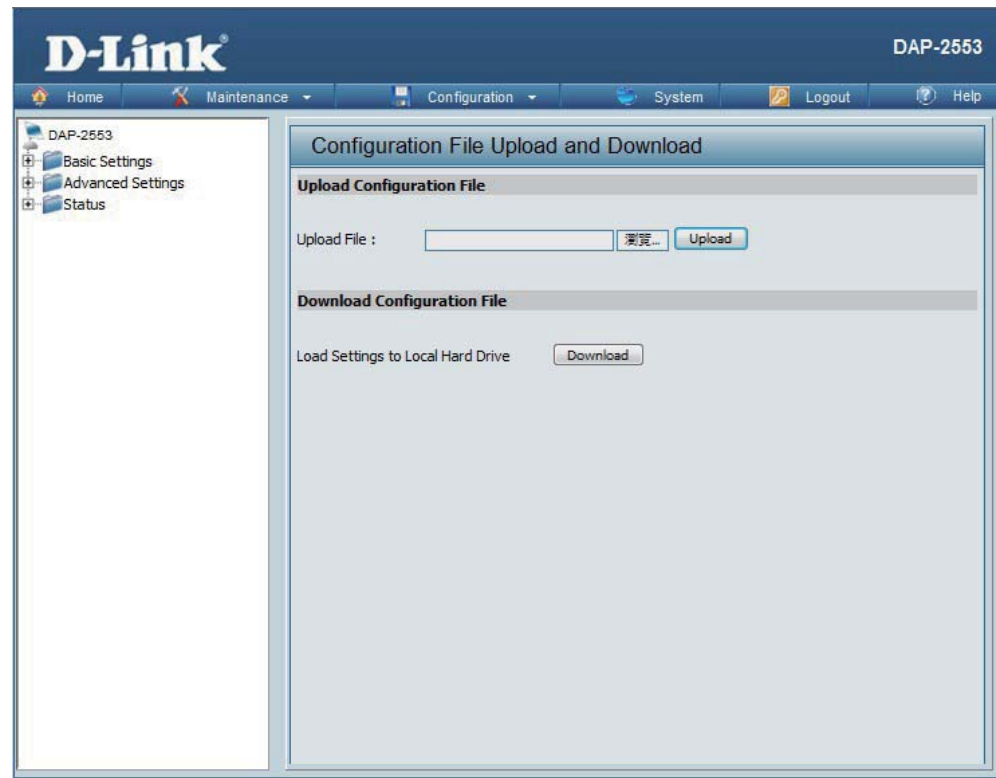
- Update Firmware From Local Hard Drive:** Shows the current "Firmware Version 3.00". It includes a text input field for the file path, a "浏览..." (Browse) button, and an "Upload" button.
- Update SSL Certification From Local Hard Drive:** Includes a text input field for the certificate file path, a "浏览..." (Browse) button, and an "Upload" button.
- Update Key From File:** Includes a text input field for the key file path, a "浏览..." (Browse) button, and an "Upload" button.

The interface also features a navigation menu on the left with options like "Basic Settings", "Advanced Settings", and "Status", and a top navigation bar with "Home", "Maintenance", "Configuration", "System", "Logout", and "Help".

Configuration File Upload

Upload File: Click the **Browse** button to locate a previously saved configuration file on your local computer. After selecting the file, click **Upload** to apply the configuration settings to the DAP-2553.

Download Configuration File: Click **Download** to save the current DAP-2553 configuration to your local computer. Note that if you save one configuration with the administrator's password now, after resetting your DAP-2553, and then updating to this saved configuration file, the password will be gone.



Time and Date

Enter the NTP server IP, choose the time zone, and enable or disable daylight saving time.

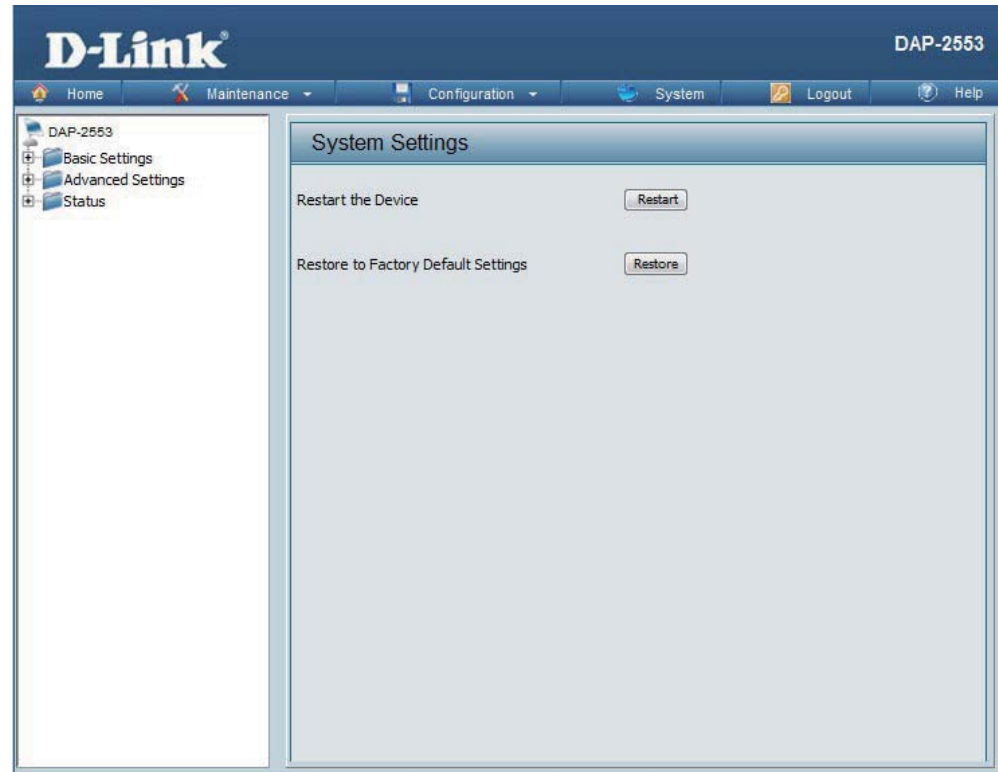
- Current Time:** Displays the current time and date settings.
- Enable NTP Server:** Check to enable the AP to get system time from an NTP server from the Internet.
- NTP Server:** Enter the NTP server IP address.
- Time Zone:** Use the drop-down menu to select your correct Time Zone.
- Enable Daylight Saving:** Check the box to enable Daylight Saving Time.
- Set the Date and Time Manually:** A user can either manually set the time for the AP here, or click the Copy Your Computer's Time Settings button to copy the time from the computer in use (Make sure that the computer's time is set correctly).

The screenshot shows the D-Link DAP-2553 web interface. The top navigation bar includes Home, Maintenance, Configuration, System, Logout, and Help. The main content area is titled "Time and Date Settings" and is divided into three sections:

- Time Configuration:** Shows the current time as 01/01/1970 02:40:06.
- Automatic Time Configuration:** Contains a checkbox for "Enable NTP Server", an input field for "NTP Server", a dropdown menu for "Time Zone" (set to "(GMT+08:00) Ulaan Bataar"), and a checkbox for "Enable Daylight Saving".
- Set the Date and Time Manually:** Features dropdown menus for Year (2014), Month (Nov), Day (27), Hour (11), Minute (52), and Second (50). It includes a "Copy Your Computer's Time Settings" button and a "Save" button.

System System Settings

- Restart the Device:** Click **Restart** to restart the DAP-2553.
- Restore to Factory Default Settings:** Click **Restore** to restore the DAP-2553 back to factory default settings.



Help

Help: Scroll down the Help page for topics and explanations.

Basic Settings

Wireless Settings

Allow you to change the wireless settings to fit an existing wireless network or to customize your wireless network.

Wireless Band

Operating frequency band. Choose 2.4GHz for visibility to legacy devices and for longer range. Choose 5GHz for least interference; interference can hurt performance. This AP will operate one band at a time.

Application

This option allows the user to choose for indoor or outdoor mode at the 5G Band.

Mode

Select a function mode to configure your wireless network. Function modes include AP, WDS (Wireless Distribution System) with AP, WDS and Wireless Client. Function modes are designed to support various wireless network topology and applications.

Network Name (SSID)

Also known as the Service Set Identifier, this is the name designated for a specific wireless local area network (WLAN). The factory default setting is "dlink". The SSID can be easily changed to connect to an existing wireless network or to establish a new wireless network.

SSID Visibility

Indicate whether or not the SSID of your wireless network will be broadcasted. The default value of SSID Visibility is set to "Enable," which allow wireless clients to detect the wireless network. By changing this setting to "Disable," wireless clients can no longer detect the wireless network and can only connect if they have the correct SSID entered.

Auto Channel Selection

If you check Auto Channel Scan, everytime when AP is booting up, the AP will automatically find the best channel to use. This is enabled by default.

Channel

Indicate the channel setting for the DAP-2553. By default, the AP is set to Auto Channel Scan. The Channel can be changed to fit the channel setting for an existing wireless network or to customize the wireless network.

Channel Width

Allows you to select the channel width you would like to operate in. Select 20MHz if you are not using any 802.11n wireless clients. Auto 20/40MHz allows your to use both 802.11n and non-802.11n wireless devices in your network.

Authentication

For added security on a wireless network, data encryption can be enabled. There are several available Authentications type can be selected. The default value for Authentication is set to "Open System".

Open System

For Open System authentication, only the wireless clients with the same WEP key will be able to communicate on the wireless network. The Access Point will remain visible to all devices on the network.

Shared Key

For Shared Key authentication, the Access Point cannot be seen on the wireless network except to the wireless clients that share the same WEP key.

Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DAP-2553. Read the following descriptions if you are having problems. (The examples below are illustrated in Windows® XP. If you have a different operating system, the screenshots on your computer will look similar to the following examples.)

Why can't I access the web-based configuration utility?

When entering the IP address of the D-Link access point (192.168.0.50 for example), you are not connecting to a website on the Internet or have to be connected to the Internet. The device has the utility built-in to a ROM chip in the device itself. Your computer must be on the same IP subnet to connect to the web-based utility.

- Make sure you have an updated Java-enabled web browser. We recommend the following:
 - Internet Explorer 7.0 or higher, Chrome, Firefox, or Safari 4 or higher
- Verify physical connectivity by checking for solid link lights on the device. If you do not get a solid link light, try using a different cable or connect to a different port on the device if possible. If the computer is turned off, the link light may not be on.
- Disable any internet security software running on the computer. Software firewalls such as Zone Alarm, Black Ice, Sygate, Norton Personal Firewall, and Windows® firewall may block access to the configuration pages. Check the help files included with your firewall software for more information on disabling or configuring it.
- Configure your Internet settings:
 - Go to Start > Settings > Control Panel. Double-click the Internet Options Icon. From the Security tab, click the button to restore the settings to their defaults.
 - Click the Connection tab and set the dial-up option to Never Dial a Connection. Click the LAN Settings button. Make sure nothing is checked. Click OK.
 - Go to the Advanced tab and click the button to restore these settings to their defaults. Click OK three times.
 - Close your web browser (if open) and open it.
- Access the web management. Open your web browser and enter the IP address of your D-Link access point in the address bar. This should open the login page for your the web management.
- If you still cannot access the configuration, unplug the power to the access point for 10 seconds and plug back in. Wait about 30 seconds and try accessing the configuration. If you have multiple computers, try connecting using a different computer.

What can I do if I forgot my password?

If you forgot your password, you must reset your access point. Unfortunately, this process will change all your settings back to the factory defaults.

To reset the access point, locate the reset button (hole) on the rear panel of the unit. With the access point powered on, use a paperclip to hold the button down for 10 seconds. Release the button and the access point will go through its reboot process. Wait about 30 seconds to access the access point. The default IP address is 192.168.0.50. When logging in, the username is admin and leave the password box empty.

How to check your IP address?

After you install your network adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e. wireless router) automatically. To verify your IP address, please follow the steps below.

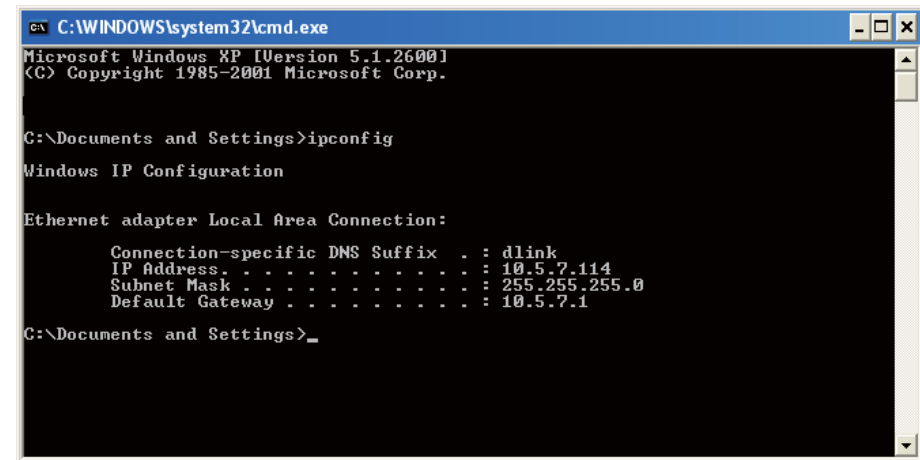
Click on Start > Run. In the run box type cmd and click OK.

At the prompt, type ipconfig and press Enter.

This will display the IP address, subnet mask, and the default gateway of your adapter.

If the address is 0.0.0.0, check your adapter installation, security settings, and the settings on your router. Some firewall software programs may block a DHCP request on newly installed adapters.

If you are connecting to a wireless network at a hotspot (e.g. hotel, coffee shop, airport), please contact an employee or administrator to verify their wireless network settings.



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : dlink
    IP Address. . . . .               : 10.5.7.114
    Subnet Mask . . . . .             : 255.255.255.0
    Default Gateway . . . . .         : 10.5.7.1

C:\Documents and Settings>_
```

How to statically assign an IP address?

If you are not using a DHCP capable gateway/router, or you need to assign a static IP address, please follow the steps below:

Step 1:

Windows® 2000: Click on Start > Settings > Control Panel > Network Connections

Windows XP: Click on Start > Control Panel > Network Connections

Windows Vista®: Click on Start > Control Panel > Network and Internet > Network and Sharing Center > Manage network connections

Step 2:

Right-click on the Local Area Connection which represents your network adapter and select Properties.

Step 3:

Highlight Internet Protocol (TCP/IP) and click Properties.

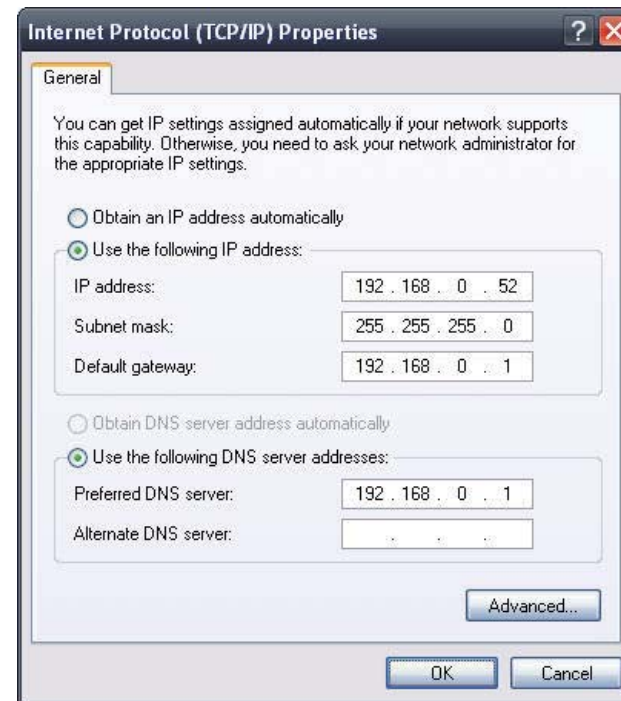
Step 4:

Click Use the following IP address and enter an IP address that is on the same subnet as your network or the LAN IP address on your router.

Example: If the router's LAN IP address is 192.168.0.1, make your IP address 192.168.0.X where X is a number between 2 and 99. Make sure that the number you choose is not in use on the network. Set Default Gateway the same as the LAN IP address of your router (192.168.0.1). Set Primary DNS the same as the LAN IP address of your router (192.168.0.1). The Secondary DNS is not needed or you may enter a DNS server from your ISP.

Step 5:

Click OK twice to save your settings.



Technical Specifications

Standards

- IEEE 802.11a
- IEEE 802.11b
- IEEE 802.11g
- IEEE 802.11n
- IEEE 802.3
- IEEE 802.3u
- IEEE 802.3ab
- IEEE 802.3af

Network Management

- Web Browser interface
 - HTTP
 - Secure HTTP (HTTPS)
- Central WiFiManager
- SNMP Support
 - Private MIB
- Command Line Interface
 - Telnet
 - Secure SSH Telnet

Data Rates*

- For 802.11a:
 - 54, 48, 36, 24, 18, 12, 9, and 6 Mbps
- For 802.11b:
 - 11, 5.5, 2, and 1 Mbps
- For 802.11g:
 - 54, 48, 36, 24, 18, 12, 9, and 6 Mbps
- For 802.11n :
 - HT20/HT40
 - 144.4/300, 130/270, 117/243, 104/216, 78/162, 66/135, 58.5/121.5, 52/108, 39/81, 26/54, 19.5/40.5, 12/27, and 6.5/13.5 Mbps

Security

- WPA™ Personal/Enterprise
- WPA2™ Personal/Enterprise
- WEP™ 64-/128-bit
- SSID Broadcast Disable
- MAC Address Access Control

Wireless Frequency Range

- 2.4 to 2.4835 GHz and 5.15 to 5.85 GHz**

Operating Voltage

- 802.3af PoE or 5V/2A

Radio and Modulation Type

- For 802.11a/g/n:
 - BPSK, QPSK, 16QAM, and 64QAM with OFDM
- For 802.11b:
 - DQPSK, DBPSK, DSSS, and CCK

Operating Frequency**

- For 802.11a:
 - 5.15 ~ 5.85 GHz
- For 802.11b/g:
 - 2.4 ~ 2.4835 GHz
- For 802.11n:
 - 2.4 GHz Band: 2.4 ~ 2.4835 GHz
 - 5 GHz Band: 5.15 ~ 5.85 GHz

Dipole Antenna

- 3dBi Gain @2.4 GHz
- 5dBi Gain @5 GHz

* Maximum wireless signal rate derived from IEEE Standard 802.11g and 802.11n specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Environmental factors will adversely affect wireless signal range.

Transmit Output Power

- 22.5dBm @ 2.4GHz
- 22.5dBm @ 5GHz

LEDs

- Power
- LAN
- 2.4 GHz
- 5 GHz

Temperature

- Operating: 0°C to 40°C
- Storing: -20°C to 65°C

Humidity

- Operating: 10%~90% (non-condensing)
- Storing: 5%~95% (non-condensing)

Certifications

- FCC
- CE
- CSA
- WiFi

Dimensions

- L = 198 mm
- W = 120 mm
- H = 32 mm

**Please note that operating frequency ranges vary depending on the regulations of individual countries and jurisdictions. The DAP-2553 isn't supported in the 5.25~5.35 GHz and 5.47 ~ 5.725 GHz frequency ranges in some regions.

Warranty

CE Mark Warning:

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

FCC Statement:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

For detailed warranty information applicable to products purchased outside the United States, please contact the corresponding local D-Link office.

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.

For operation within 5.15 ~ 5.25GHz frequency range, it is restricted to indoor environment. This device meets all the other requirements specified in Part 15E, Section 15.407 of the FCC Rules.

IMPORTANT NOTICE:

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.

For detailed warranty information applicable to products purchased outside the United States, please contact the corresponding local D-Link office.

FOR COUNTRY CODE SELECTION USAGE (WLAN DEVICES)

Note: The country code selection is for non-US model only and is not available to all US model. Per FCC regulation, all WiFi product marketed in US must fixed to US operation channels only.

This unit is to be used with a power supply, P/N 2ABE10B US or WB-10E05R or F12W3-050200SPAU.

Cet appareil doit être utilisé avec une source de courant, modèle 2ABE10B US , WB-10E05R , F12W3-050200SPAU.