

## Safety

Before performing an installation of a MOTOMESH® Duo system, please ensure that you have read the Network Setup and Installation Guide and taken note of any safety related information. The Network and Installation Guide and other documents can be found on:

<http://motorola.motowifi4solutions.com/support/mesh/documents.php>

## List of required tools

- Laptop computer running Windows XP with a 100Base-T Ethernet interface and a 802.11b/g wireless adapter
- Internet Explorer 6 or higher
- Ethernet patch cable
- MotoMesh Duo Ethernet cable

This guide will demonstrate how to access a MotoMesh Duo device using the Web interface. The Web interface can be used to stage units prior to a large deployment or be used to configure small networks (5 nodes or less). MotoMesh Duo devices come from the factory configured as IAPs (Intelligent Access Point) with DHCP enabled and a management VLAN set to 4095 (untagged).

## Accessing the Web Interface

This section will describe how to statically configure the address of the primary IP stack. The primary IP stack of a Duo Device comes from the factory set for DHCP. The secondary IP stack has a static address of 192.168.1.1/255.255.255.0. This address can be reached wirelessly via a 2.4GHz 802.11 Wi-Fi client.

- Step 1: Power on the MotoMesh Duo device
- Step 2: Statically configure the laptop wireless adapter with an IP address of 192.168.1.2 255.255.255.0.
- Step 3: Using your laptop wireless utility select add a network manually (or connect to a non broadcasting SSID). In the SSID field set the SSID to the MAC address located on the device label in all **capital letters separate by colons** (e.g. if the device label has 00195EB41234 then enter the SSID as 00:19:5E:B4:12:34). Note: For devices running v2.0 software, set the SSID as MOTOMESH (all capital letters).
- Step 4: Next configure the security type to WPA-PSK (TKIP) or WPA2-PSK (AES) with a passphrase of blackd0g. **Note: blackd0g is with a zero.** You should now be able to connect to the hidden SSID of the MotoMesh Duo device.
- Step 5: After connecting, open up Internet Explorer. Make sure you disable any proxy you may be using under Tools-> Options-> Connections->LAN Settings. Using secure **https**, connect to <https://192.168.1.1>. You will be prompted to accept a certificate. Click YES. This will open up the website. When prompted enter in a username of Admin and a password of 5up (**note the capital A in Admin**)
- Step 6: You should land on the **General Tab**. Enter a device name in the AP Name field. If you are going to use this device as an MWR click the MWR check box under device type. Next click apply.
- Step 7: Next click on the **IP Address Tab**. Under DHCP mode click the static button. After doing so you should now be able to enter in an IP address / subnet mask (e.g. 172.31.0.10 255.255.0.0), Default GW and DNS server. After entering this information click apply. {*There is an alert message that should be noted.* NOTE: Before proceeding to the next step, please make a note of the IP address information that you just entered.
- Step 8: Click on the **Mesh Tab**. Under select radio, choose the radio which will be used to mesh on (e.g. 5.8GHz, 5.4 GHz). Under the selected radio click on the enabled button under MeshConnex.
- Step 9: Click on the **Services Tab**. If you are plugging in your IAP into a trunk switch port and require a VLAN tagged management VLAN then configure a management VLAN in the Management VLAN ID

field. If you are plugging in the IAP into a switch port that is **NOT** tagging management packets then leave the Management VLAN ID set to 4095 (4095 means untagged). Please note, that if you configure a management VLAN on your IAP, in most cases your MWRs must also be configured with this same management VLAN. **Next click disable backhaul detection.** Click apply when finished.

- Step 10: Click on the **Reset Device Tab**. Click the reboot device button. Then click the apply changes / continue button. Next click reset device.
- Step 11: Connect an Ethernet cable from your laptop via the Ethernet patch cable to the port on the MotoMesh Duo that is marked **POE OPT**. This port is considered a backhaul port. Note: This port only sources PoE if a personality plug is plugged into the select port on the DUO device.
- Step 12: Next statically configure your laptop Ethernet interface to have an IP address on the same network configured on the DUO device in Step 6 (e.g. 172.31.0.11/255.255.0.0).
- Step 13: **Turn off your laptop wireless adapter.** Using Internet Explorer, use **secure https** and connect to the address configured on the DUO device in Step 6 (e.g. <https://172.31.0.10>). When prompted enter in a username of Admin and a password of 5up (**note the capital A in Admin**). You should now have access to the web interface via the Ethernet adapter on your laptop.

## Configuring a Virtual Access Point (VAP)

- Step 1: Click on the **VAP tab**. Select a radio which to configure your VAP on (e.g. 2.4 GHz).
- Step 2: Next select a VAP to configure (1 – 14). Note: 15 is reserved for the wireless web interface and cannot be used
- Step 3: Under the SSID, enter in an SSID to broadcast. This is what users will see when connecting for your wireless network.
- Step 4: Under the **action to perform** drop down tab, select **Activate VAP**.
- Step 5: If you are creating a VAP with security, select the **True** button under **Encryption Enabled**.
- Step 6: Under **Authentication Type**, select an authentication type. **Open** for no security, **auto** or **shared** for WEP, **wpa** or **wpa2** for Radius, wpa-psk (used with TKIP encryption) wpa2-psk (used with AES encryption), **wpaAutopsk** (to support both TKIP and AES encryption).
- Step 7: Under the **Encryption Key Cipher Mode**, select **wep** if using WEP auto. If using wpa-psk, select tkip. If using wpa2-psk, select aes. If using wpaAuto-psk select auto (to support both TKIP and AES). This field is dependent on what is selected in Step 6. If WEP is selected click on the Configure WEP keys button to configure your WEP keys.
- Step 8: If using wpa-psk, wpa2-psk, or wpaAutopsk, enter in a passphrase in the **Authentication passphrase** field. If you are using Radius authentication then enter the Radius server IP, shared secret and Radius port in the applicable Radius configuration fields.
- Step 9: Click the **suppress SSID broadcast** button if you want to keep your SSID from being broadcast.
- Step 10: If want to tag client traffic with a VLAN, enter in a VLAN ID in the **VLAN ID** field. Remember you must have your network backend configured to support this (e.g. VLAN, DHCP pool, etc.). Keep this VLAN ID at 4095 to not tag client traffic.
- Step 11: Under **General Settings on the VAP screen**, click the **Enable button under client associations**. Next click the apply button.
- Step 12: Reboot the device as outlined in step 9 under Accessing the Web Interface.
- Step 13: You should now have connectivity to the WiFi network